ORDER NO. VMD9405M117

Service Manual

General Description
Adjustment Procedures
Block/Schematic Diagrams
Exploded Views/Parts List

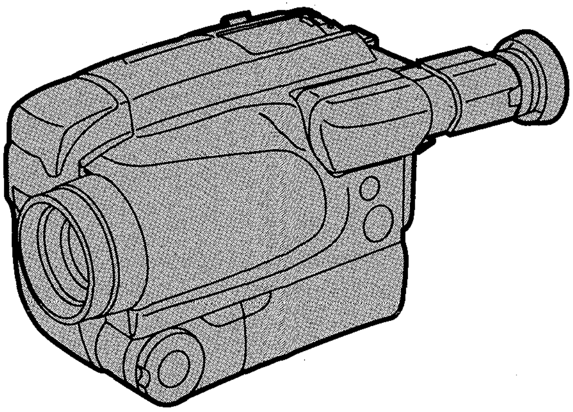
Panasonic S VHS C VHS PAL 625

Hi-Fi HQ

S-VHS-C Movie

NV-S70E/B/A

DL-MECHANISM



SPECIFICATIONS

ITEM	SPECIFICATION
POWER	Source: Battery Pack; 4.8V AC Adaptor; 6.0V Consumption; Recording mode; 6.8W (Battery operation)
VIDEO RECORDING SYSTEM	4 rotary heads, helical scanning system PAL
FM AUDIO RECORDING SYSTEM	4 rotary heads, helical scanning system
TAPE FORMAT	S-VHS-C/VHS-C Cassette Tape (Tape width 12.7mm)
TAPE SPEED	23.39mm/s Record/Playback Time: 45min. with NV-SEC45XD
CAMERA	PICK-UP ELEMENT: CCD (Charge Coupled Device)
	STANDARD ILLUMINATION: 1,400 lux
	MINIMUM REQUIRED ILLUMINATION: 1 Lux (Low Light Mode)
	LENS: 10:1 Variable Speed Power Zoom Lens with Digital AI Auto Focus, Auto Iris, Auto Focus System, F1.6 (6~60mm), Filter Diameter 37mm
	IMAGE SENSOR: 1/3 inch CCD Image Sensor
	VIEWFINDER: 0.5 inch Electronic Viewfinder

ITEM	SPECIFICATION
VIDEO	HEADS: 4 rotary heads, 1 flying erase head
	OUTPUT: PHONO CONNECTOR; 1.0Vp-p 75Ω unbalanced S-VIDEO OUT; 1.0Vp-p 75Ω unbalanced
AUDIO	HEAD: 1 Stationary head (Normal-Mono) 4 rotary heads; 2 channels (Hi-Fi Sound-Stereo)
	OUTPUT: PHONO CONNECTOR; −6dB, 47kΩ loaded
	INPUT: MIC IN (M3); −70dB 4.7kΩ or more unbalanced
WEIGHT	Approx. 760g (without Battery Pack)
DIMENSIONS	112(W)×117(H)×216(D) mm
STANDARD ACCESSORIES	1 pc. AC Adaptor 1 pc. Battery Pack 1 pc. Cassette Adaptor 1 pc. Shoulder Strap 1 pc. AV Output Cable 1 pc. DC Input Cable 1 pc. Battery for Cassette Adaptor Operation 1 pc. 21 pin Adaptor (NV-S70E/B) 1 pc. S-Video Cable 1 pc. AC Cable

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

INTRODUCTION

This service manual contains technical information which will allow service personnels to understand and service this model.
Section 1 presents you with some general information of features and controls, enabling you to become familiar with each function.
Section 2 contributes to your mechanical and electrical adjustment as well disassembly and replacement procedures.
In the case of very common information relating to other models like mechanical adjustments, please refer to each service manual.
Section 3 contains block diagrams which offers you information for checking and understanding each circuit. Schematic diagrams which give you detailed information such as waveforms, voltage data, function e.t.c...
Section 4 contains exploded views and parts list.
Please place orders using the parts list and not the drawing reference numbers.
If the circuit is changed or modified, this information will be followed by supplementary service manual to be filed with original service manual.

Note: Adjustment procedure supplement for camera unit is separate volume from now.
Please refer to following manual for detail of adjustment procedure of camera.
Order number for adjustment procedure (camera) supplement: VMD9405M118.
(It will be supplied a few weeks later.)

Note: This movie camera uses AC Adaptor is VSK0317 series.
The Service manual for AC Adaptor VSK0317 is separate volume.
Please refer to following manual for detail of VSK0317 series. (order no. VMD9406M125)

CONTENTS

TECHNICAL INFORMATION

SECTION 1 GENERAL DESCRIPTIONS 1-1

SECTION 2 ADJUSTMENT PROCEDURES 2-1

2-1. DISASSEMBLY PROCEDURES 2-1
2-2. DISASSEMBLY PROCEDURE OF LENS UNIT 2-6
2-3. DISASSEMBLY PROCEDURES OF MECHANISM 2-8
2-4. ASSEMBLY AND PHASE ADJUSTMENT PROCEDURES OF MECHANISM 2-11
2-5. INTERCHANGEABILITY ADJUSTMENT 2-16
2-6. ELECTRICAL ADJUSTMENT PROCEDURES 2-26

SECTION 3 BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS 3-1

3-1. ABBREVIATIONS 3-1
3-2. SENSOR BLOCK DIAGRAM 3-3
3-3. LENS DRIVE BLOCK DIAGRAM 3-5
3-4. PROCESS BLOCK DIAGRAM 3-7
3-5. POWER BLOCK DIAGRAM 3-9
3-6. SYSTEM CONTROL & SERVO BLOCK DIAGRAM 3-11
3-7. LUMINANCE/CHROMINANCE & HEAD AMP BLOCK DIAGRAM 3-14
3-8. AUDIO BLOCK DIAGRAM 3-17
3-9. EVF SCHEMATIC DIAGRAM 3-20
3-10. EVF C.B.A. 3-23
3-11. OPERATION SCHEMATIC DIAGRAM 3-25
3-12. SENSOR SCHEMATIC DIAGRAM 3-27
3-13. LENS DRIVE SCHEMATIC DIAGRAM 3-30
3-14. PROCESS SCHEMATIC DIAGRAM 3-32
3-15. CAMERA MAIN [SENSOR, LENS DRIVE, PROCESS Section] C.B.A. 3-38
3-16. CCD FLEXIBLE CARD SCHEMATIC DIAGRAM 3-40
3-17. CCD FLEXIBLE CARD C.B.A. 3-40
3-18. POWER SCHEMATIC DIAGRAM 3-41
3-19. POWER C.B.A. 3-43
3-20. SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM 3-46
3-21. AUDIO SCHEMATIC DIAGRAM 3-51
3-22. LUMINANCE/CHROMINANCE & HEAD AMP SCHEMATIC DIAGRAM 3-54
3-23. VTR MAIN [SYSTEM CONTROL & SERVO, AUDIO, LUMINANCE/ CHROMINANCE & HEAD AMP Sections] C.B.A. 3-65
3-24. DRIVE SCHEMATIC DIAGRAM 3-68
3-25. DRIVE C.B.A. 3-71
3-26. MIC SCHEMATIC DIAGRAM 3-73
3-27. MIC C.B.A. 3-75
3-28. AV JACK SCHEMATIC DIAGRAM 3-77
3-29. AV JACK C.B.A. 3-77
3-30. S-JACK SCHEMATIC DIAGRAM 3-78
3-31. S-JACK C.B.A. 3-78
3-32. IR SENSOR SCHEMATIC DIAGRAM 3-79
3-33. IR SENSOR C.B.A. 3-79
3-34. CIRCUIT BOARD LAYOUT 3-80

SECTION 4 EXPLODED VIEWS & PARTS LIST 4-1

4-1. EXPLODED VIEWS 4-1
    1. VTR MECHANISM SECTION (1) 4-1
    2. VTR MECHANISM SECTION (2) 4-2
    3. VTR MECHANISM SECTION (3) 4-3
    4. CAMERA LENS SECTION 4-4
    5. FRAME & CASING PARTS SECTION (1) 4-5
    6. FRAME & CASING PARTS SECTION (2) 4-6
    7. PACKING PARTS & ACCESSORIES SECTION 4-7
4-2. MECHANICAL REPLACEMENT PARTS LIST 4-8
4-3. ELECTRICAL REPLACEMENT PARTS LIST 4-11

Technical Information

Service caution

1-1. Service Extension Cables.

Use the following extension cables when checking or adjusting individual circuit bords.

Ref	Part No.	PIN	Part Name	Connection	Q'ty
1	VFK0972	16	Flat Cable	FP304 (CAM. Main) ~ FP1001(POWER)	1
2	VFK0985	23	Flat Cable	FP5001(VTR. Main) ~ Cylinder	1
3	VFK0977	20	Flat Cable	FP6007(VTR. Main) ~ Camera. Operation	1
4	VFK0979	16	Flat Cable	FP6001(VTR. Main) ~ Mech. Chassis	1
5	VFK0980	9	Flat Cable	FP4001(VTR. Main) ~ AC Head	1
6	VFK0978	6	Flat Cable	FP6002(VTR. Main) ~ Mech. Chassis	1
7	VFK0841	28	Extension Cable	B6001 (VTR. Main) ~ B1001(POWER)	1
8	VFK0949	23	Flat Cable	FP6005(VTR. Main) ~ FP2003(Drive)	1
9	VFK0973	26	Flat Cable	FP301 (CAM. Main) ~ FP3003(VTR. Main)	1
10	VFK0974	8	Extension Cable	P305 (CAM. Main) ~ Side Case (L)	1
11	VFK0976	5	Extension Cable	P3003 (VTR. Main) ~ P802(E. V. F Unit)	1
12	VFK0975	3	Extension Cable	P701 (CAM. Main) ~ PJ401(IR. Sensor)	1

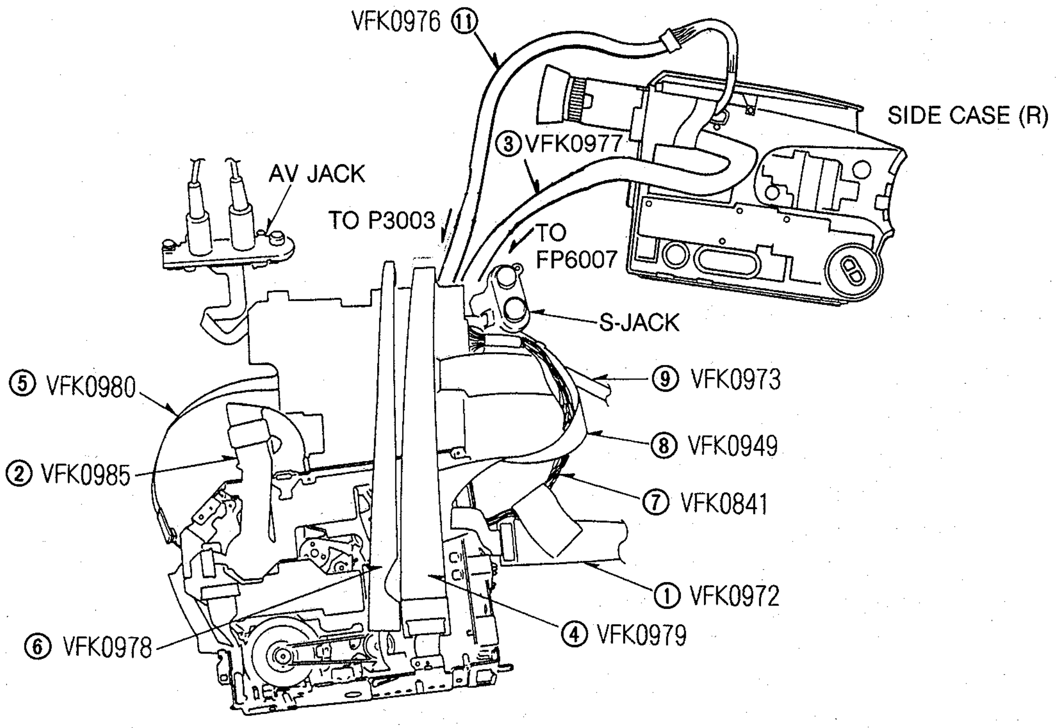

VFK0976 ⑪
SIDE CASE (R)
③VFK0977
AV JACK
TO P3003
TO FP6007
S-JACK
⑨ VFK0973
⑤ VFK0980
⑧ VFK0949
② VFK0985
⑦ VFK0841
① VFK0972
⑥ VFK0978
④ VFK0979

Fig. T1-1

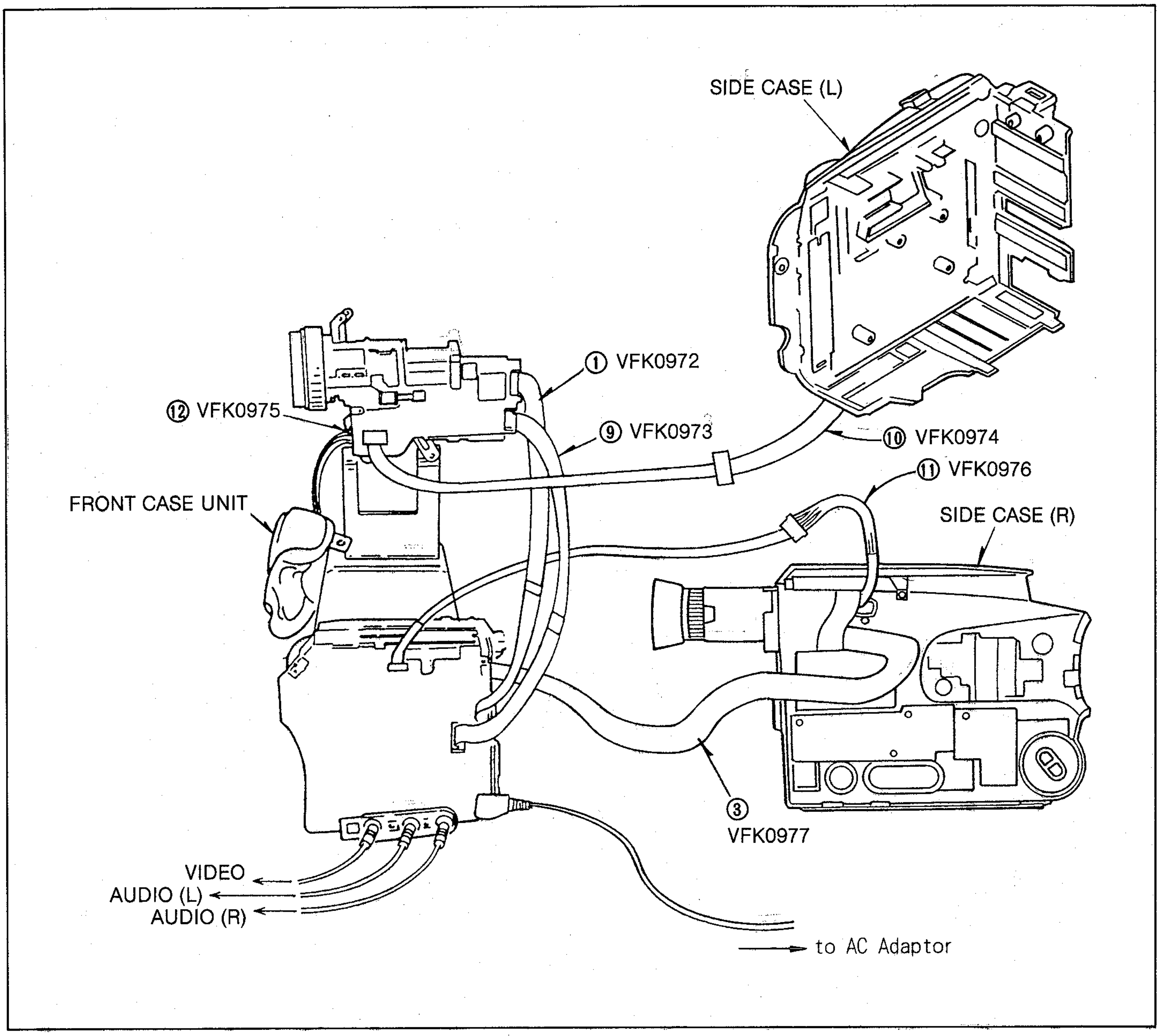

SIDE CASE (L)
① VFK0972
⑫ VFK0975
⑨ VFK0973
⑩ VFK0974
⑪ VFK0976
FRONT CASE UNIT
SIDE CASE (R)
③
VFK0977
VIDEO
AUDIO (L)
AUDIO (R)
to AC Adaptor

Fig. T1-2

1-2. New ROM IC for EVR fixture.

We are pleased to introduse the new ROM IC, VFK0701ROM24 for the EVR fixture.
This ROM IC will provide you with many advanced features such as automatic calculation.

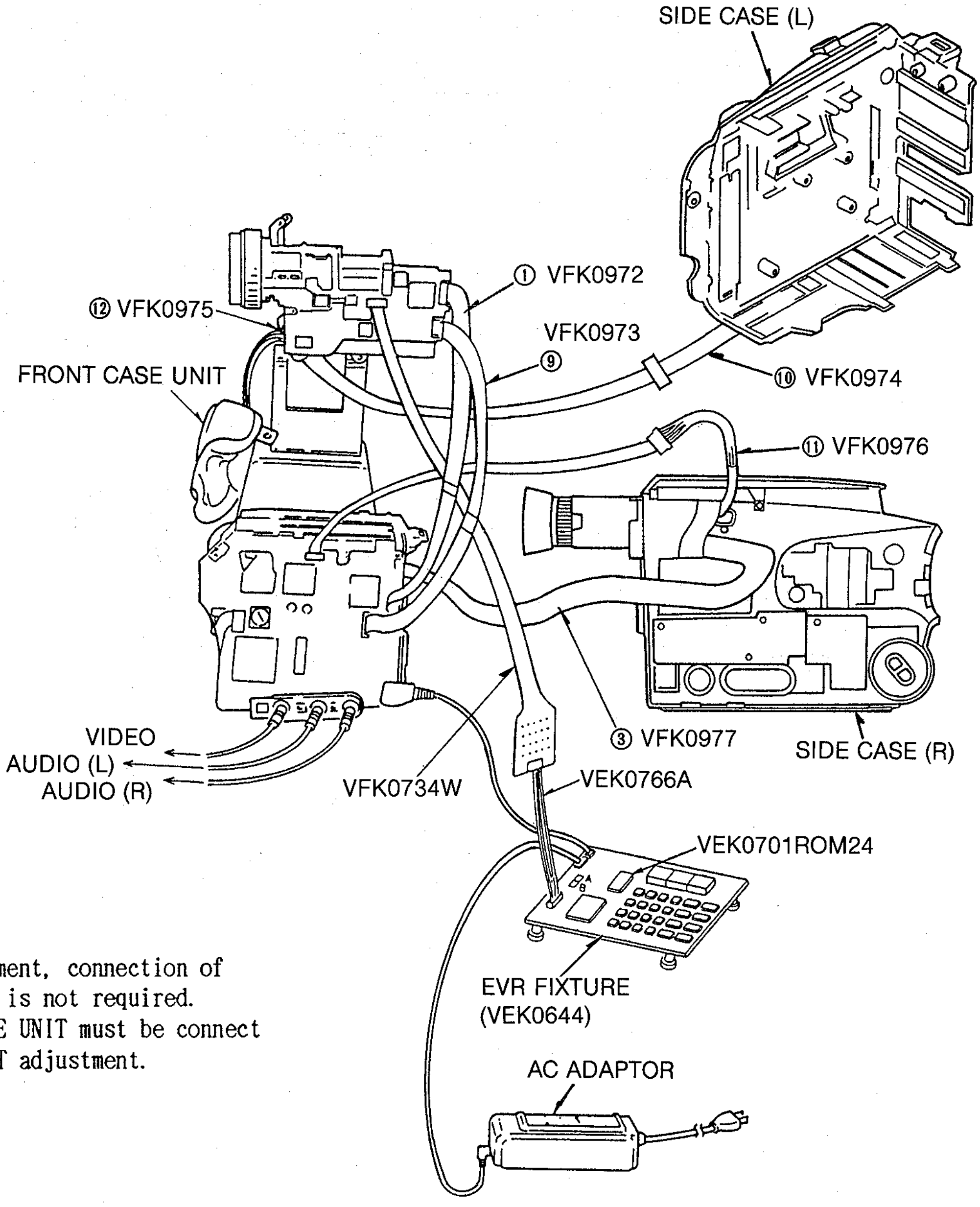
Connecting Cables for between EVR and Movie Camera are as same as provious models.

Number of Connecting Cables : VFK0734W & VFK0766A

Connection between this Movie Camera and EVR fixture are solderless when using the VFK0734W and VFK0766A. Please refer to Fig. T2 for how to use the cables.

PIN ARRANGEMENT OF B802

1	CAMERA CLOCK
2	SID
3	VD
4	Y SIGNAL
5	CDS OUT
6	A/D IN
7	Vref H
8	Vref T
9	F NO
10	WIDE
11	IRIS OPEN
12	RESET
13	GND
14	5V
15	TELE
16	Z. ENC
17	Vref-T
18	Vref-L
19	SUB
20	AGC OUT
21	AF CLOCK
22	AF DATA
23	CAMERA TEST
24	GND


SIDE CASE (L)
① VFK0972
⑫ VFK0975
VFK0973
⑨
FRONT CASE UNIT
⑩ VFK0974
⑪ VFK0976
VIDEO
AUDIO (L)
AUDIO (R)
③ VFK0977
SIDE CASE (R)
VFK0734W
VEK0766A
VEK0701ROM24
EVR FIXTURE
(VEK0644)
AC ADAPTOR

NOTE:
- a). During adjustment, connection of SIDE CASE (R) is not required.
- b). The FRONT CASE UNIT must be connect performing AWT adjustment.

Fig. T2

1-3. ROM ICs for EVR fixture

There are 24 kinds of ROM IC's as shown in Fig. R1.
These all ROM ICs have 3 kinds of Functions as shown below.

(1). General Adjustment for Camera unit
(2). Automatic Calculation for AWB & Colour Reproduction
(3). Average Data Automatic rewriting

REF. No.	ROM NUMBER & availabilty	Effective System	MODE SW SIDE	Applicable models & Function	PART NUMBER OF EVR CONNECTION CABLE
1	VFK0701ROM1 available	PAL & NTSC	"A" SIDE	NV-MS70/NV-M810	VFK0769
			"B" SIDE	NV-S1/NV-S100 (PAL & NTSC)	
2	VFK0701ROM2 available	PAL & NTSC	"B" SIDE	NV-S5/NV-S500 (PAL & NTSC)	VFK0730
3	VFK0701ROM3 available	PAL ONLY	"A" SIDE	NV-G1/G2/G3(G100/G200/G300)	VFK0699
			"B" SIDE	NV-MS95/MS950	
4	VFK0701ROM4 available	NTSC ONLY (JAPAN)	"A" SIDE	NV-S7/S9 (NTSC ONLY)	VFK0766A & VFK0734W
5	VFK0701ROM5 available	PAL ONLY	"A" SIDE	NV-S7/NV-S700	VFK0766A & VFK0734W
			"B" SIDE	NV-G101/G120/G202/G220/G303	VFK0699·
6	VFK0701ROM6 available	NTSC ONLY (JAPAN)	"A" SIDE	NV-T1(NTSC ONLY)	VFK0766A & VFK0734W
7	VFK0701ROM7 Descontinued-------------(Please use VFK0701ROM10)	PAL ONLY	"A" SIDE	NV-M40/NV-M3000/NV-M3300	VFK0766A & VFK0734W
8	VFK0701ROM8 available	PAL ONLY	"A" SIDE	NV-S6/NV-S600/NV-S8/S800	VFK0766A & VFK0734W
9	VFK0701ROM9 available	NTSC ONLY (JAPAN)	"A" SIDE	NV-S99/S77	VFK0766A & VFK0734W
			"B" SIDE		
10	VFK0701ROM10 available	PAL ONLY	"A" SIDE	NV-MS4/NV-M9000/NV-M9900	VFK0766A & VFK0734W
			"B" SIDE	NV-M40/NV-M3000/NV-M3300	
11	VFK0701ROM11 available	NTSC ONLY (JAPAN)	"A" SIDE	NV-G200PN	VFK0766A & VFK0734W
			"B" SIDE	NV-M3000PN/NV-M9000PN	
12	VFK0701ROM12 available	NTSC ONLY (JAPAN)	BOTH SIDE ("A", "B")	NV-3CCD1 (NTSC JAPAN DOMESTIC)	VFK0766A & VFK0734W
13	VFK0701ROM13 available	PAL ONLY	"A" SIDE	NV-S20E	VFK0766A & VFK0734W
			"B" SIDE	NV-S20A/B/NV-S250	
14	VFK0701ROM14 available	PAL ONLY	"A" SIDE	NV-S78 (PAL ONLY)	VFK0766A & VFK0734W
15	VFK0701ROM15 available	NTSC ONLY (JAPAN)	"A" SIDE	NV-CS1(NTSC ONLY)	VFK0766A & VFK0734W
16	VFK0701ROM16 available	NTSC ONLY (JAPAN)	"A" SIDE	NV-S750PN	VFK0766A & VFK0734W
			"B" SIDE	NV-S250PN (NTSC ONLY)	
17	VFK0701ROM17 available	NTSC ONLY (JAPAN)	"A" SIDE	NV-3CCD1PN	VFK0766A & VFK0734W
			"B" SIDE	NV-CS1	
18	VFK0701ROM18 available	PAL ONLY	"A" SIDE	NV-CS1(PAL ONLY)	VFK0766A & VFK0734W
19	VFK0701ROM19 available	PAL ONLY	"A" SIDE	NV-R50/NV-R500 (PAL ONLY)	VFK0766A & VFK0734W
20	VFK0701ROM20 available	NTSC ONLY (JAPAN)	"A" SIDE	NV-R500PN	VFK0766A & VFK0734W
			"B" SIDE	NV-S10/S58	
21	VFK0701ROM21 Descontinued-------------(Please use VFK0701ROM22)	PAL ONLY	"A" SIDE	NV-S85/S850/S65	VFK0766A & VFK0734W
22	VFK0701ROM22 available	PAL ONLY	"A" SIDE	NV-R10/R100/A1	VFK0766A & VFK0734W
			"B" SIDE	NV-S85/S850/S65	
23	VFK0701ROM23 available	PAL/SECAM	"A" SIDE	NV-R10F/R200/R30/R300	VFK0766A & VFK0734W
		NTSC	"B" SIDE	NV-R100PN/A1PN	
24	VFK0701ROM24 available	PAL/SECAM NTSC	"A" SIDE	NV-S70/R200PN/A1	VFK0766A & VFK0734W

Fig. R1

A. P. S. (Auto Power Saver:Anti Ground Shooting)

1. GENERAL DESCRIPTION

1-1. How to Use the POWER SAVE Switch
Tilting the Movie Camera more than 70 ~80 deg. from its normal horizontal position while the [POWER SAVE] Switch is in the "ON" position activates the following functions:

(1). Anti Ground Shooting (In the Shooting Mode)
The Movie Camera is automatically switched over to the shooting Pause Mode to prevent accidental shooting of the ground when carrying it after shooting a scene.

(2). Auto Power Saving (Inthe Shooting Pause Mode)
This turns off the Viewfinder to prevent unnecessary consumption of power from battery pack.

1-2. To Resume Shooting from the Above Condition
Hold the Movie Camera in roughly horizontal position and press the Start/Stop Button again.
When you don't want to use this function, set the [POWER SAVE] Switch to "OFF".

NOTE :

·The Movie Camera is shipped with the [POWER SAVE] Switch set to "OFF".

·When the Movie Camera is restored to the horizontal position after the POWER SAVE Function has automatically stopped the shooting and switched the Movie Camera over to the Shooting Pause Mode the "CHK" Indication in the Viewfinder flashes.
In this case, some pictures may have been recorded unintentionally before the Movie Camera was switched over to the Shooting Pause Mode (between the horizontal position and more than 90 deg. from the horizontal position).
To erase that portion, use the Camera Search Function to find end of the last desired scene, and then resume shooting.

2. A.P.S. Function Table

		POWER	CONDITION	CONTROL		
				VTR	EVF	CAMERA
A. P. S. SWITCH	ON	BATTERY	REC MODE	O	×	×
			REC PAUSE	×	O	O
			NO CASSETTE	×	O	O
			OTHERS	×		
		DC JACK	REC MODE	O	×	×
			REC PAUSE	×	O	O
			NO CASSETTE	×	O	O
			OTHERS	×		
	OFF	ALWAYS		×		

NOTE :

1). The "O" mark shows A.G.S. detection.
2). When the AGS function detects, each circuit is controled as shown below.
*. VTR CONDITION····During the Recording mode, VTR Mode turns to REC Pause.
*. EVF CONDITION····During the Rec.Pause mode, EVF turns OFF.
*. CAMERA CONDITION··During the Rec.Pause mode, ·Manual Focus and Zoom function Stop.

The Built-in Lithium Battery

1. GENERAL DESCRIPTION

NV-S70 series have a built-in rechargeable lithium battery.
It maintains the operation of the built-in clock (Date and Time)when the Movie Camera is turned off. When the Movie Camera is in operation, this battery is recharged automatically. However, if the Movie Camera is not used for a very long time, the lithium battery can become exhausted. In this case, the Indication " " in the Viewfinder flashes and the date and time return to the initial Indication " 1. 1.1990 ".

2. HOW TO RECHARGE THE BUILT-IN LITHIUM BATTERY

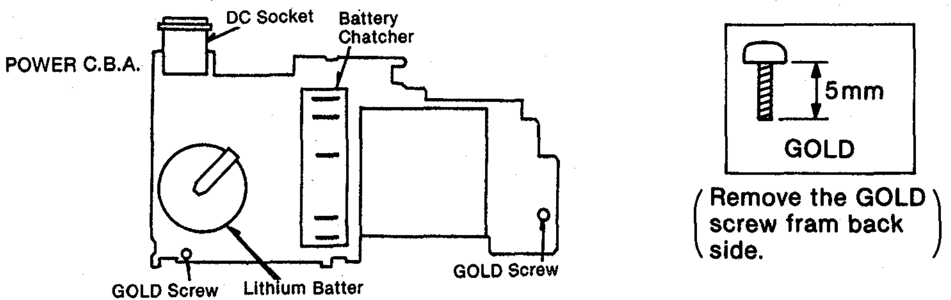
If the Indication " " in the Viewfinder flashes for approx. 10 seconds when turning the Movie Camera on, the lithium battery needs to be recharged as follows:

(1). Connect the Movie Camera to the AC Adaptor.
(2). Turn out the [OPERATE] Switch.(Power on.)
(3). Slide the [EJECT] Switch.
(Even with no video cassette inserted, the Eject operation must be performed.)
(4). Close the Cassette Compartment by pressing the [LOCK] Button and wait for approx. 4 hours.
(After the lithium battery has been charged for approx. 4 houres, it can maintain the operation of the clock for approx. 3 months.)

3. HOW TO REPLACE THE LITHIUM BATTERY

(PROCEDURES)

1. Remove the POWER C.B.A from Main Frame
(Remove the Gold 2 Screw from Main Frame.
2. Unsolder the Lithium battery "VL2020" and then replace the new one.(See Fig B1)



(Remove the GOLD screw fram back side.)

Fig. B1

NOTE:

The lithium battery is a critical component(Type No.:VL2020 Manufactured by Panasonic.)
It must never be subjected to excessive heat or discharge.
It must therefore only be fitted in equipment designed specifically for its use.
Replacement batteries must be of the same type and manufacturer.
They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.
Do not attempt to re-charge the old battery or re-use it for any other purpse.
It should be disposed of in waste products destined for burial rather than incineration.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer.
Discard used batteries according to manufacturer's instructions.

ADVARSEL!

Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri
af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

SERVICE INFORMATION DISPLAY

General Description

The NV-S70 series has SERVICE INFORMATION DISPLAY function which facilitates quick trouble-shooting. You can turn on the Service Information Display, by performing the following procedures. This causes the Service Information to be displayed on the EVF. (There are 4 kinds of SERVICE MODE, as shown below.) In the OSD Line Output Mode, Service Information can also be viewd on the TV.

MODE NAME	FUNCTION	How to turn it ON. (Push following keys simultaneously for at least 2 sec.)		
OSD Line Output MODE	· Checking the EVF information on the TV monitor.	DATE/TIME SET (SIDE PANEL)	RESET (TOP PANEL)	DATE TIME (SIDE PANEL)

MODE NAME	FUNCTION	How to turn it ON. (Push following keys simultaneously for at least 2 sec.)		
SERVICE MODE 1	· Remaining Battery A/D Value · Safety Device · Capstan/Cylinder injuctions	DATE/TIME SHIFT (SIDE PANEL)	RESET (TOP PANEL)	DATE TIME (SIDE PANEL)

MODE NAME	FUNCTION	How to turn it ON. (After chosing SERVICE MODE 1, Push [DATE/TIME] key. (SIDE PANEL)
SERVICE MODE 2	· Reference Voltage A/D Value · Mechanism position · Serial key code.	DATE TIME

MODE NAME	FUNCTION	How to turn it ON. (After chosing SERVICE MODE 2, Push [DATE/TIME] key. (SIDE PANEL)
SERVICE MODE 3	· ERROR CODE Display	DATE TIME

MODE NAME	FUNCTION	How to turn it ON. (After chosing SERVICE MODE 3, Push [DATE/TIME] key. (SIDE PANEL)
SERVICE MODE 4	·PG SHIFTER ADJUSTMENT	DATE TIME

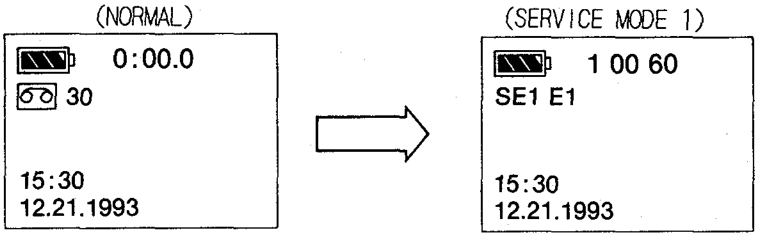
ERROR CODE DISPLAY

When undesirable conditions occur, the "ERROR CODE" will automatically be displayed on the EVF, the CAMERA LED will flash for a short time, then the power will be turned off.
By turning on Service Mode 3, you can check to see what kind of undesirable condition occured, even after the ERROR CODE has disappeared. You can check the Error Code if the AC Main Lead or the Battery has been disconnected. To clear the ERROR CODE, disconnect the AC Main Lead or the Battery. You can also check Error Code by looking at how the CAMERA LED flashes. The CAMERA LED flashing pattern will differ according to the Error Code. (See Fig. J)

SERVICE MODE 1

① Remaining Battery Voltage (A/D Value)=This Value shows the voltage at IC6001 Pin 98 which detects the battery under cut.

Desplay:
(Example)



For example ⇒SE1 E1 (Means you are in Service Mode 1 and the voltage at IC6001 Pin 98 is 3.35V.)

★ When the voltage at IC6001 pin98(the battery remaining voltage) and the voltage (approx. 3.35V) at IC6001 Pin 99(the reference voltage) became same level, battery under cut will be detected.

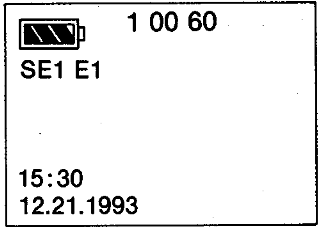
		Low Digit															
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
High Digit	0	0	0.01	0.03	0.04	0.06	0.07	0.09	0.10	0.12	0.13	0.15	0.16	0.18	0.19	0.21	0.22
	1	0.24	0.25	0.27	0.28	0.30	0.31	0.33	0.34	0.36	0.37	0.39	0.40	0.41	0.43	0.45	0.46
	2	0.48	0.49	0.51	0.52	0.54	0.55	0.57	0.58	0.60	0.61	0.63	0.64	0.66	0.67	0.69	0.70
	3	0.72	0.73	0.75	0.76	0.77	0.79	0.80	0.81	0.83	0.85	0.86	0.88	0.89	0.91	0.92	0.94
	4	0.95	0.97	0.98	1.00	1.01	1.03	1.04	1.06	1.07	1.09	1.10	1.12	1.13	1.15	1.16	1.18
	5	1.19	1.21	1.22	1.24	1.25	1.27	1.28	1.30	1.31	1.33	1.34	1.36	1.37	1.39	1.40	1.42
	6	1.43	1.45	1.46	1.48	1.49	1.50	1.52	1.53	1.55	1.56	1.58	1.59	1.61	1.62	1.64	1.65
	7	1.67	1.68	1.70	1.71	1.73	1.74	1.76	1.77	1.79	1.80	1.82	1.83	1.85	1.86	1.87	1.89
	8	1.91	1.92	1.94	1.95	1.97	1.98	2.00	2.01	2.03	2.04	2.06	2.07	2.09	2.10	2.12	2.13
	9	2.15	2.16	2.18	2.19	2.21	2.22	2.24	2.25	2.26	2.28	2.29	2.31	2.32	2.34	2.35	2.37
	A	2.38	2.40	2.41	2.43	2.44	2.46	2.47	2.49	2.50	2.52	2.53	2.55	2.56	2.58	2.60	2.61
	B	2.62	2.64	2.65	2.67	2.69	2.70	2.71	2.73	2.74	2.76	2.77	2.79	2.80	2.82	2.83	2.85
	C	2.86	2.88	2.89	2.91	2.92	2.94	2.95	2.97	2.98	2.99	3.01	3.02	3.04	3.05	3.07	3.08
	D	3.10	3.11	3.13	3.14	3.16	3.17	3.19	3.20	3.22	3.23	3.25	3.26	3.28	3.29	3.31	3.32
	E	3.34	3.35	3.37	3.38	3.40	3.41	3.43	3.44	3.46	3.47	3.49	3.50	3.52	3.53	3.55	3.56
	F	3.58	3.59	3.61	3.62	3.64	3.65	3.67	3.68	3.70	3.71	3.73	3.74	3.75	3.77	3.78	3.80

Remaining Battery Voltage (A/D value) (Voltage at IC6001 Pin 98)

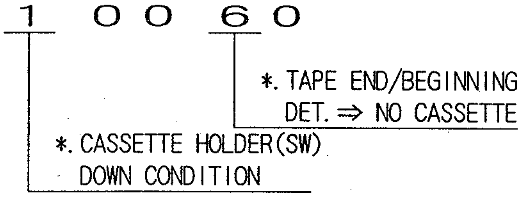
② The condition of the tape, sefety device, capstan/cylinder information are shown in hexa decimal numbers.

Desplay:
(Example)

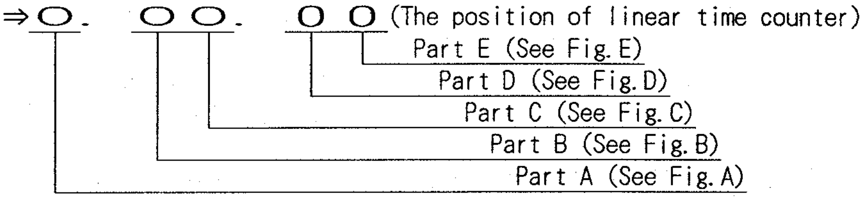
(SERVICE MODE 1)



1 00 60
SE1 E1
15:30
12.21.1993


1 00 60
*. TAPE END/BEGINNING DET. ⇒ NO CASSETTE
*. CASSETTE HOLDER(SW) DOWN CONDITION

Display position ⇒


O. OO. OO
(The position of linear time counter)
Part E (See Fig. E)
Part D (See Fig. D)
Part C (See Fig. C)
Part B (See Fig. B)
Part A (See Fig. A)

CONTENTS \ DISPLAY	0	1	2	3	4	5	6	7	8	9	:	▷	◁	-	.	Φ
CASSETTE SW (CASS. DOWN:1)	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
SAFETY TAB SW (TAB:1)	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
S-VHS OPERATIONSW (ON:1)	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
S-VHS DETECTION SW (S-VHS:1)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Fig. A

CONTENTS \ DISPLAY	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
LOADING LOCK (DET. :1)	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
CYLINDER LOCK (DET. :1)	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
T-REEL LOCK (DET. :1)	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
S-REEL LOCK (DET. :1)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Fig. B

CONTENTS \ DISPLAY	0	4	8	C
NOT USED(ALWAYS "0")	0	0	0	0
NOT USED(ALWAYS "0")	0	0	0	0
BATTERY UNDER CUT(DET:1)	0	1	0	1
DEW SENSOR (DET:1)	0	0	1	1

Fig. C

CONTENTS \ DISPLAY	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
UN-LOADING COMMAND (OUTPUT:1)	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
TAPE END DETECTION (DET. :1)	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
TAPE BEGINNING DETECTION(DET. :1)	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
POSITION CHATARING (DET. :1)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Fig. D

CONTENTS \ DISPLAY	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
CYLINDER ON (OUTPUT:1)	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
CAPSTAN ON (OUTPUT:1)	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
CAPSTAN REV. (OUTPUT:1)	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
LOADING ON (OUTPUT:1)	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

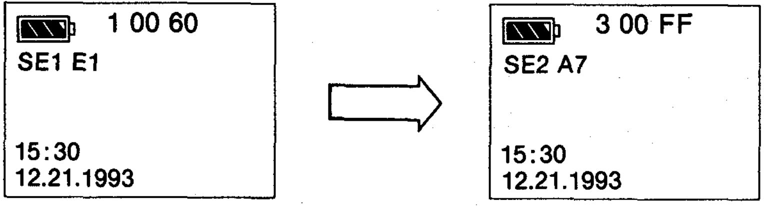
Fig. E

SERVICE MODE 2

① Reference voltage A/D Value =This value shows the voltage at IC6001 Pin 99 which is used as a reference voltage to detect the battery under cut.

Desplay:
(Example)

(SERVICE MODE 1) (SERVICE MODE 2)



1 00 60
SE1 E1
15:30
12.21.1993

3 00 FF
SE2 A7
15:30
12.21.1993

For example ⇒SE2 A7 (It shows Service Mode 2 and the voltage at IC6001 pin 99 is 2.49V.)

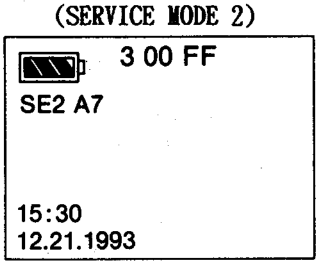
(unit:V)

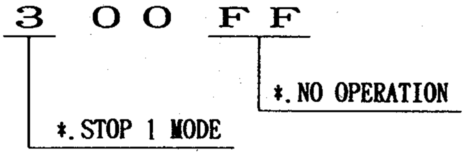
		Low Digit															
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
High Digit	0	0	0.01	0.03	0.04	0.06	0.07	0.09	0.10	0.12	0.13	0.15	0.16	0.18	0.19	0.21	0.22
	1	0.24	0.25	0.27	0.28	0.30	0.31	0.33	0.34	0.36	0.37	0.39	0.40	0.41	0.43	0.45	0.46
	2	0.48	0.49	0.51	0.52	0.54	0.55	0.57	0.58	0.60	0.61	0.63	0.64	0.66	0.67	0.69	0.70
	3	0.72	0.73	0.75	0.76	0.77	0.79	0.80	0.81	0.83	0.85	0.86	0.88	0.89	0.91	0.92	0.94
	4	0.95	0.97	0.98	1.00	1.01	1.03	1.04	1.06	1.07	1.09	1.10	1.12	1.13	1.15	1.16	1.18
	5	1.19	1.21	1.22	1.24	1.25	1.27	1.28	1.30	1.31	1.33	1.34	1.36	1.37	1.39	1.40	1.42
	6	1.43	1.45	1.46	1.48	1.49	1.50	1.52	1.53	1.55	1.56	1.58	1.59	1.61	1.62	1.64	1.65
	7	1.67	1.68	1.70	1.71	1.73	1.74	1.76	1.77	1.79	1.80	1.82	1.83	1.85	1.86	1.87	1.89
	8	1.91	1.92	1.94	1.95	1.97	1.98	2.00	2.01	2.03	2.04	2.06	2.07	2.09	2.10	2.12	2.13
	9	2.15	2.16	2.18	2.19	2.21	2.22	2.24	2.25	2.26	2.28	2.29	2.31	2.32	2.34	2.35	2.37
	A	2.38	2.40	2.41	2.43	2.44	2.46	2.47	2.49	2.50	2.52	2.53	2.55	2.56	2.58	2.60	2.61
	B	2.62	2.64	2.65	2.67	2.69	2.70	2.71	2.73	2.74	2.76	2.77	2.79	2.80	2.82	2.83	2.85
	C	2.86	2.88	2.89	2.91	2.92	2.94	2.95	2.97	2.98	2.99	3.01	3.02	3.04	3.05	3.07	3.08
	D	3.10	3.11	3.13	3.14	3.16	3.17	3.19	3.20	3.22	3.23	3.25	3.26	3.28	3.29	3.31	3.32
	E	3.34	3.35	3.37	3.38	3.40	3.41	3.43	3.44	3.46	3.47	3.49	3.50	3.52	3.53	3.55	3.56
	F	3.58	3.59	3.61	3.62	3.64	3.65	3.67	3.68	3.70	3.71	3.73	3.74	3.75	3.77	3.78	3.80

Reference Voltage (A/D value) (Voltage at IC6001 Pin 99)

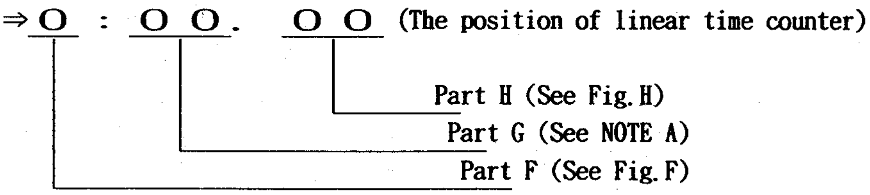
② The contents of mechanism position, serial key code and mechanical process number are shown in hexa decimal number.

Desplay:
(Example)


(SERVICE MODE 2)
3 00 FF
SE2 A7
15:30
12.21.1993


3 0 0 F F
*. NO OPERATION
*. STOP 1 MODE

Display position


⇒0 : 0 0. 0 0 (The position of linear time counter)
Part H (See Fig. H)
Part G (See NOTE A)
Part F (See Fig. F)

DISPLAY	MECHANISM POSITION
1	EJECT
2	PRE・EJECT
3	STOP 1
4	PRE・STOP
5	(MID)
6	
7	
8	STOP 2
9	———————
A	PLAY

Fig. F (Mechanism Position)

DISPLAY	KEY CODE
0 0	STOP
0 1	EJECT
0 2	REW
0 3	FF
0 6	PAUSE
0 8	REC/REC PAUSE
0 A	PLAY
F F	NO OPERATION

Fig. H (Key code)

NOTE A:

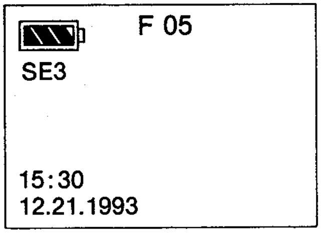
This part shows mechanism movement process.
However it changes too fast to read it.
When servicing, use the Part F (Mechaism Position:See Fig. F)in stead of Part G.

SERVICE MODE 3

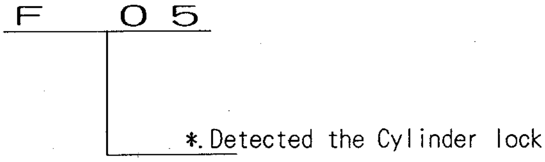
① When undesirable conditions occur, the Error Code is stored in IC6001 automatically, using the Lithum battery.
When you turn on Service Mode 3, the Error Code is displayed on the E.V.F.
Also, the CAMERA LED is flashed according to Error code.

Desplay:
(Example)

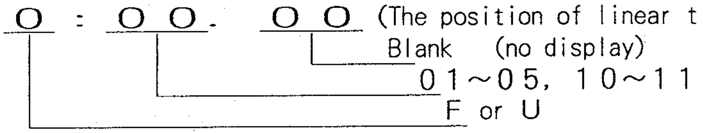
(SERVICE MODE 3)



F 05
SE3
15:30
12.21.1993



Display position ⇒
(See Fig. I)



(The position of linear time counter)

Display position⇒CAMERA LED (See Fig. J)

DISPLAY	CONDITION	The Power off timing
F 0 1	T-REEL LOCK	After 1 minute flashing LED
F 0 2	S-REEL LOCK	After 1 minute indicating LED
F 0 3	UNLOADING LOCK	After 1 minute indicating LED
F 0 4	LOADING LOCK	After 1 minute indicating LED
F 0 5	CYLINDER LOCK	After 1 minute indicating LED
F 5 1	FOCUS MOTOR LOCK	-------------------
F 5 2	ZOOM MOTOR LOCK	-------------------
U 1 0	DEW DETECTION	After 18 minute indicating LED
U 1 1	HEAD CLOGGING	Not turning off

Figure I Error Code

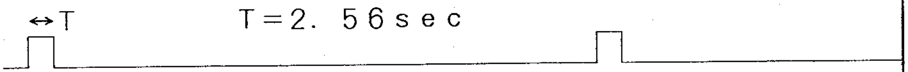
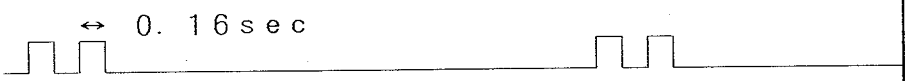
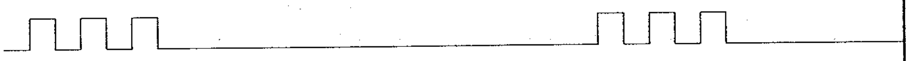
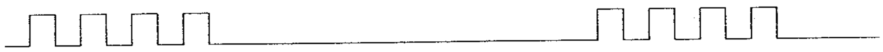
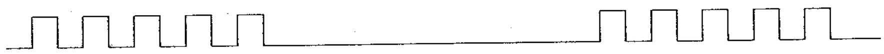
Lock Condition	Power LED Flashing Timming
T-REEL LOCK	
S-REEL LOCK	
UNLOADING LOCK	
LOADING LOCK	
CYLINDER LOCK	
OTHERS	Power LED is flashed at 1 Hz timing

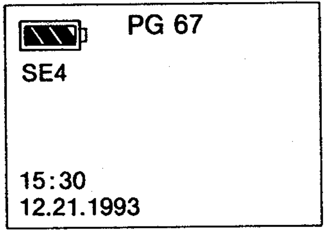
Fig. J LED Flashing Timing

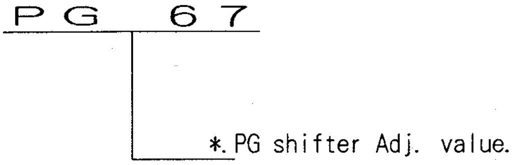
SERVICE MODE 4

① Service Mode 4 is PG SHIFTER ADJUSTMENT mode for Servo section.
For more detail, please refer to Adjustment Service Manual Order No. VMD9405M118.

Desplay:
(Example)

(SERVICE MODE 3)


PG 67
SE4
15:30
12.21.1993


PG 67
*. PG shifter Adj. value.

3. How to Check Digital Circuit

3-1. Checking Principle

The digital circuit can be checked if a ramp signal (sawtooth signal) is supplied to the input of A/D Converter (IC302-29). The output of A/D Converter is described below.
In addition to the A/D Converter **(IC302)** output, all digital ICs input and output signals become specified pulses, which are listed in schematic diagram.

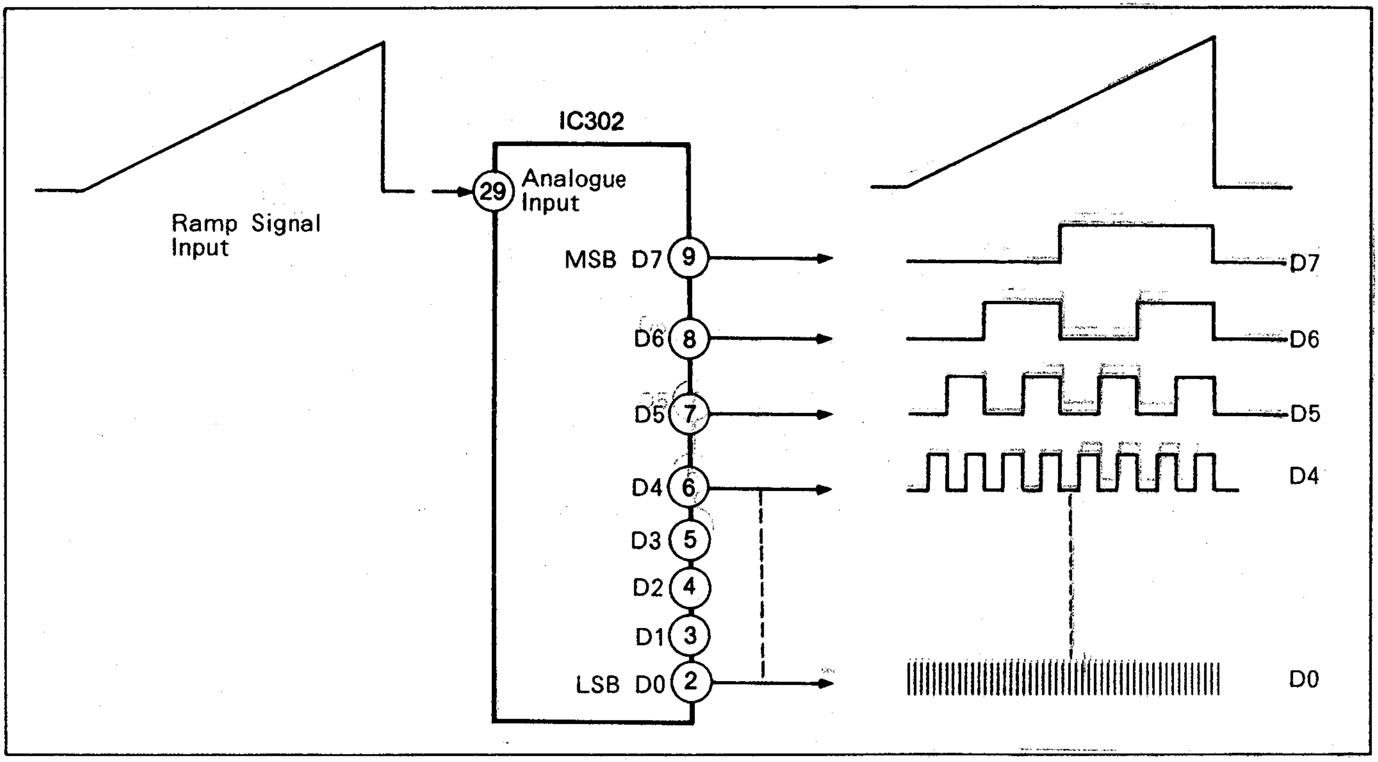
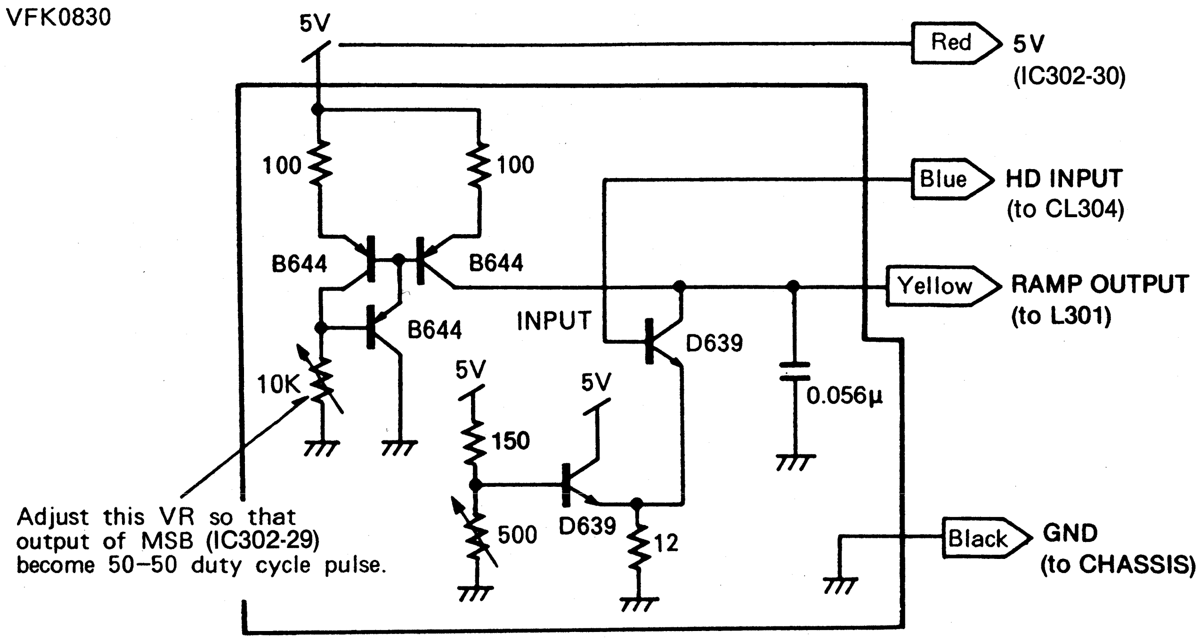

IC302
Ramp Signal Input
29
Analogue Input
MSB D7 9
D6 8
D5 7
D4 6
D3 5
D2 4
D1 3
LSB D0 2
D7
D6
D5
D4
D0

Fig. L1

3–2. How to Connect ramp generator.

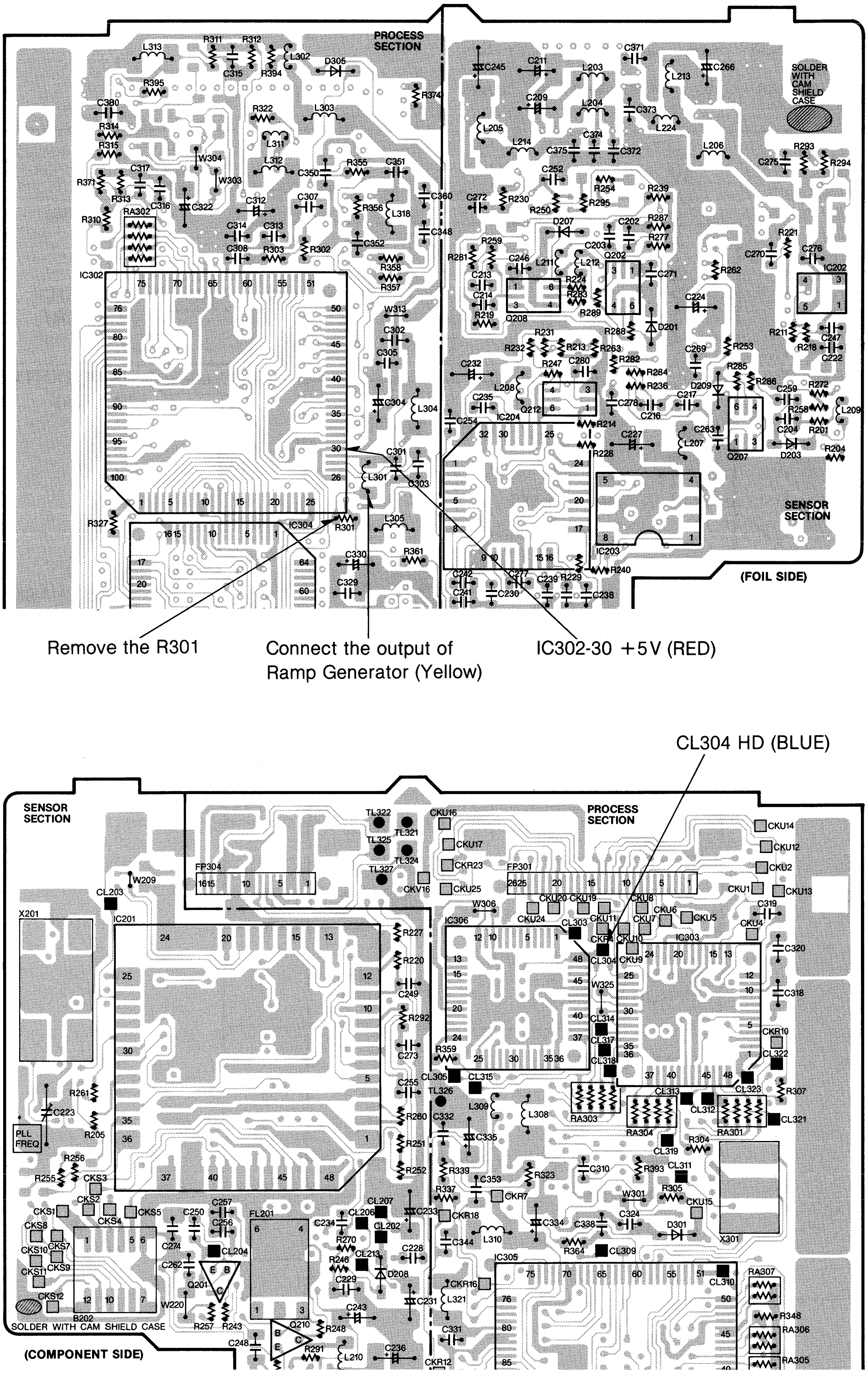
In order to generate a ramp signal that synchronizes with the HD(horizontal drive) of the camera, the following ramp generator circuit has been designed.
Construct and connect it to process board as shown in **Fig. L2, L3.**


VFK0830
5V
Red
5V
(IC302-30)
100
100
Blue
HD INPUT
(to CL304)
B644
B644
Yellow
RAMP OUTPUT
(to L301)
B644
INPUT
D639
5V
5V
10K
0.056μ
150
500
D639
12
Black
GND
(to CHASSIS)

Adjust this VR so that output of MSB (IC302-29) become 50–50 duty cycle pulse.

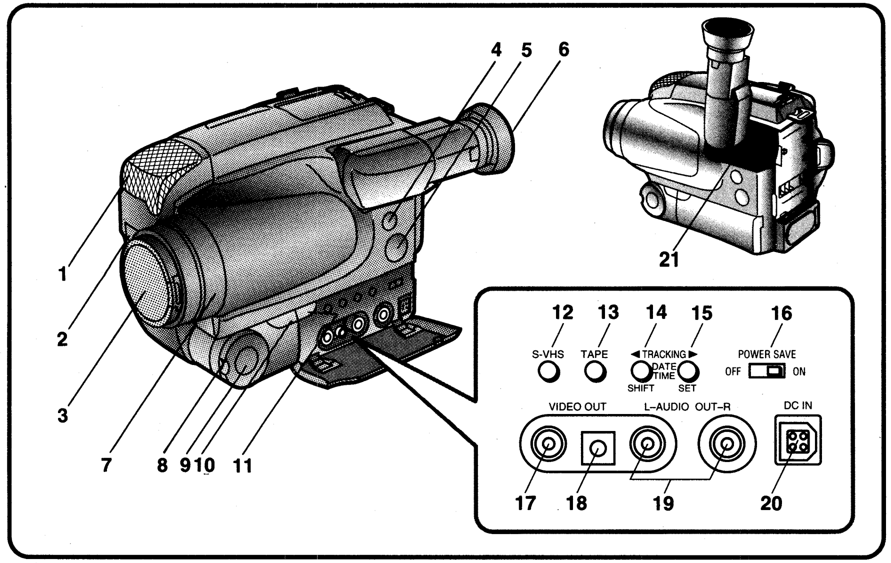
ITEMS	VALUE	PCS
RESISTOR		
ERDS2TJ120	**12ohm**	1
ERDS2TJ101	**100ohm**	2
ERDS2TJ151	**150ohm**	1
VARIABLE RESISTOR		
EVNDRAA00B14	10Kohm	1
EVNDRAA00B52	500ohm	1
TRANSISTOR		
2SB644	**PNP**	3
2SD639	**NPN**	2
CAPACITOR		
ECQB1H563JH	0.056μ	1

Fig. L2



Controls and Functions

For more details, see the pages indicated in brackets.


4
5
6
21
1
2
3
7
8
9
10
11
12
13
14
15
16
S-VHS
TAPE
◄TRACKING►
DATE TIME
SHIFT
SET
POWER SAVE
OFF
ON
VIDEO OUT
L–AUDIO OUT–R
DC IN
17
18
19
20

1 Microphone

2 Infra-Red Sensor

3 Lens Cap

4 [DATE/TIME] Button

5 [FADE] Button

6 Eyecup

7 Focus Ring

8 [AE] Dial
Use this dial to select the desired AE mode.

9 [BACKLIGHT] Button

10 [FOCUS] Button

11 [W.B] Button
Manual White Balance Button

12 [S-VHS] Button

13 [TAPE] Button

14 [DATE/TIME/SHIFT • ◄ TRACKING] Button
Press this button to adjust the tracking, or to advance to the next item during the setting of the date and time.

15 [DATE/TIME/SET • TRACKING ►] Button
Press this Button to adjust the tracking, or to set the correct date and time.

16 [POWER SAVE] Switch
When this Switch is set "ON", the Power Save Function will be activated.

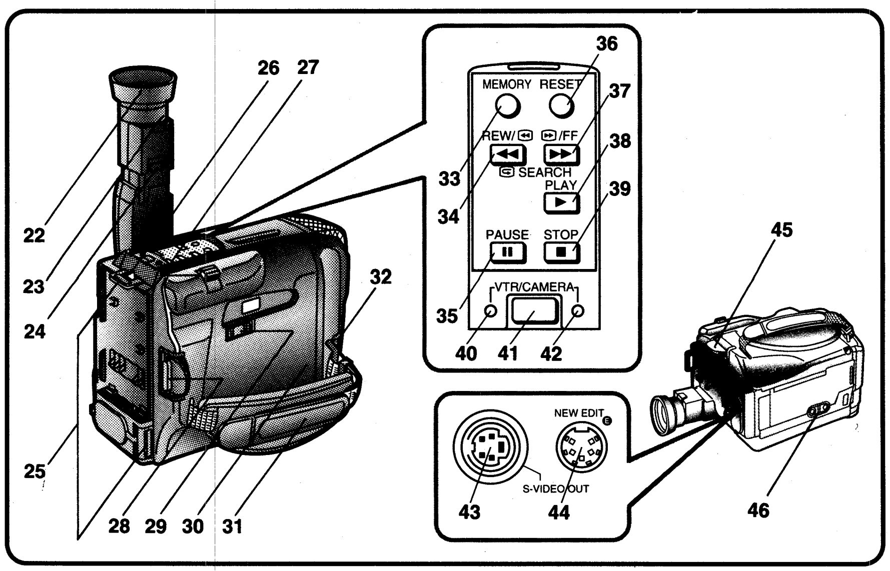
17 [VIDEO OUT] Socket

18 [RF DC OUT] Socket
To playback via a TV Set without AV Input Socket, connect this Socket to the RF IN Socket of the TV Set using an RF Adaptor (optional).

19 [AUDIO OUT] Sockets

20 [DC IN] Socket

21 Dew Sensor Slot
Through this slot, the Movie Camera detects condensation. Take care not to let this slot gets clogged with dirt and not to cover it with your fingers, etc.


26
27
22
23
24
25
32
28
29
30
31
36
MEMORY
RESET
37
REW/◄◄
►►/FF
38
◄◄ SEARCH
PLAY
33
34
39
PAUSE
STOP
35
VTR/CAMERA
40
41
42
45
NEW EDIT
S-VIDEO OUT
43
44
46

22 Viewfinder

23 Eyepiece Corrector Ring

24 Eyepiece Release Button

25 Shoulder Strap Holders

26 [BATTERY EJECT] Lever

27 [W • T] Zoom Lever

28 Record Start/Stop Button (Red)

29 [EJECT] Lever

30 Cassette Compartment

31 Grip Belt

32 [MIC] Socket
To record sound with an external microphone (optional), connect it to the [MIC] Socket. (Connecting an external microphone automatically disconnects the built-in microphone.) Ensure that the microphone conforms with the following requirements:
- Connection Cable: M3-type plug
- Impedance: less than 4.7 kohm
- Type: Stereo-type
  (If a mono-type microphone is connected, no sound will be recorded on the right channel).
- Sensitivity: Approx. –70 dB
- Power Source: Type that does not require a power source

33 [MEMORY] Button

34 [REW/◄◄] Button
Use this Button:
- Rec Check
- Review
- REW (Rewind)
- Camera Search

35 [PAUSE] Button

36 [RESET] Button

37 [►►/FF] Button
Use this Button:
- Cue
- FF (Fast-Forwarding)
- Camera Search

38 [PLAY] Button

39 [STOP] Button

40 "VTR" Indication Lamp

41 [VTR/CAMERA] Button
Press this Button to select the "VTR" Mode or the "CAMERA" Mode.

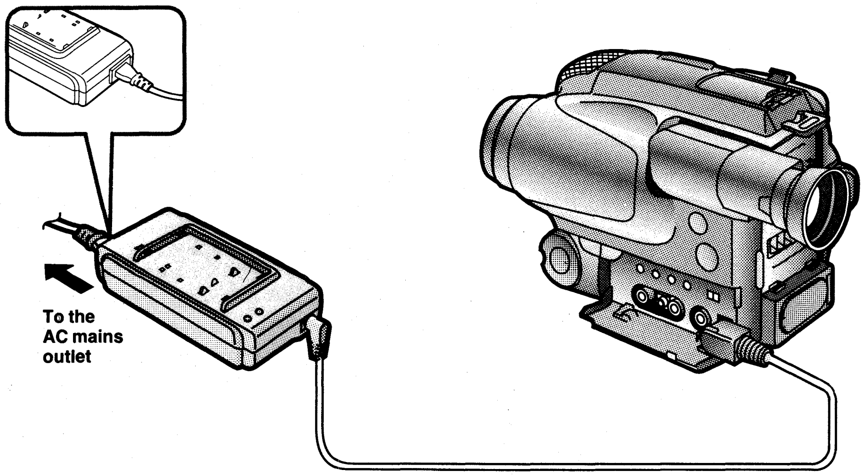
42 "CAMERA" Indication Lamp

43 [S-VIDEO OUT] Socket

44 [NEW EDIT E] Socket

45 [POWER] ON/OFF Switch

46 Tripod Receptacle
Attach a Tripod (optional) to this Receptacle.


To the
AC mains
outlet

Cautions for the AC Adaptor

■ Cautions for Use

- ●Before connecting the AC Adaptor to an AC mains socket confirm that the voltage and frequency on the rating plate match the local AC mains voltage and frequency. (The AC Adaptor can be used within a voltage range of AC 100 V–240 V, and a frequency of 50 or 60 Hz.)
- ●Do not handle the AC Adaptor with wet hands.

■ Caution for Cleaning

Before cleaning the AC Adaptor, make sure that it is disconnected from the AC mains socket.

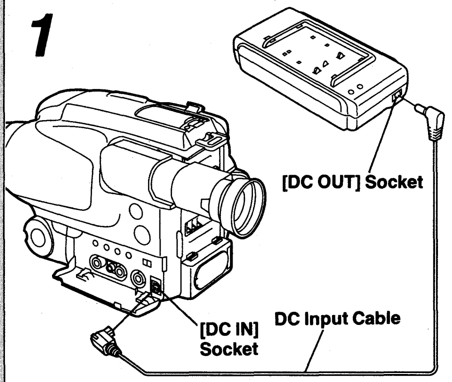
<table>
<tr><th>Title</th><th colspan="2">Procedure</th><th>Remarks, etc.</th></tr>
<tr>
<td>

Using the AC Adaptor as Power Supply Unit

To use the Movie Camera with the Battery Pack, it is necessary to charge the Battery Pack first.

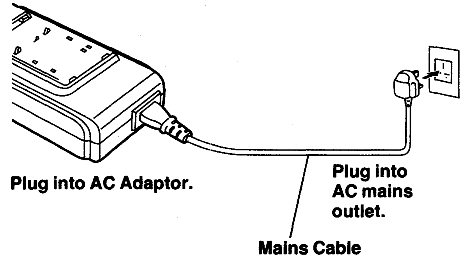
</td>
<td>

1


[DC OUT] Socket
[DC IN]
Socket
DC Input Cable

</td>
<td>

2


Plug into AC Adaptor.
Plug into
AC mains
outlet.
Mains Cable

</td>
<td>

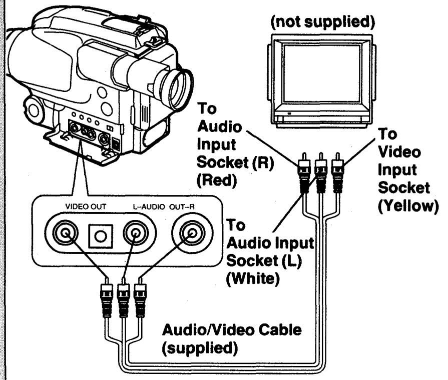
- ●When the AC Adaptor is used to supply the Movie Camera with power, remove the Battery Pack from the AC Adaptor as it cannot charge the Battery Pack and provide power simultaneously.
- ●Do not use the AC Adaptor for any purposes other than supplying the unit with power or charging the Battery Pack.
- ●When listening to a radio while the AC Adaptor is in operation, the radio reception may be distorted. In this case, move the radio farther away from the AC Adaptor.
- ●When not using the AC Adaptor, unplug its mains cable.
When unplugging the mains cable, pull it by the plug, not by the cable.

</td>
</tr>
<tr>
<td>

Watching Picture on a TV set (Using the Audio/Video Cable or S-Video Cable)

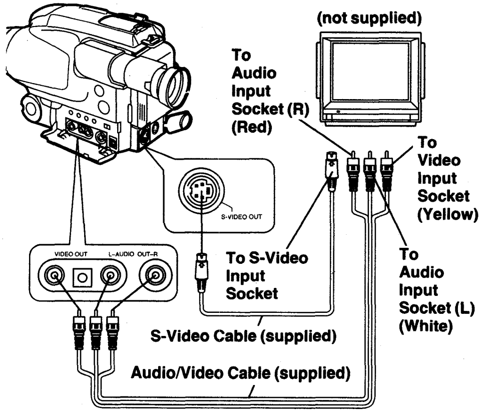
Connect after turning off the Movie Camera and the TV Set.

</td>
<td>


(not supplied)
To
Audio
Input
Socket (R)
(Red)
To
Video
Input
Socket
(Yellow)
VIDEO OUT
L-AUDIO OUT-R
To
Audio Input
Socket (L)
(White)
Audio/Video Cable
(supplied)

Connect the Movie Camera to the TV set.

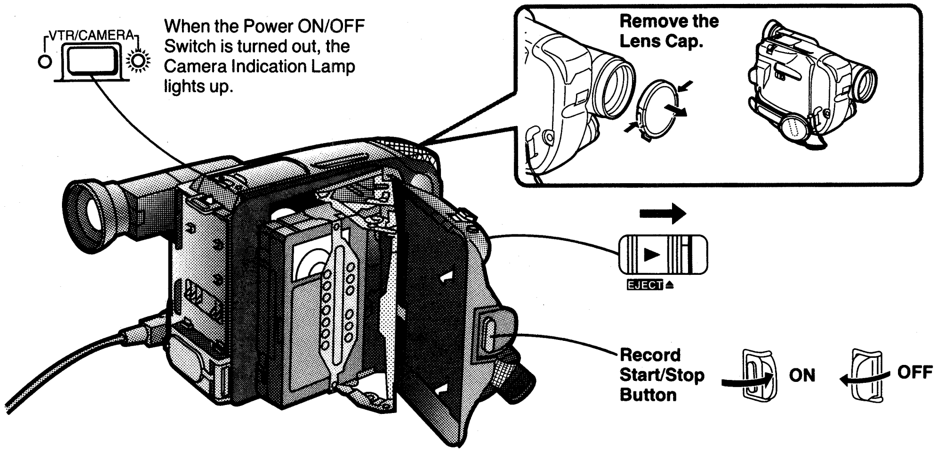
</td>
<td>


(not supplied)
To
Audio
Input
Socket (R)
(Red)
To
Video
Input
Socket
(Yellow)
S-VIDEO OUT
VIDEO OUT
L-AUDIO OUT-R
To S-Video
Input
Socket
To
Audio
Input
Socket (L)
(White)
S-Video Cable (supplied)
Audio/Video Cable (supplied)

</td>
<td>

- ●If your TV set is not equipped with an AV Input Socket, the RF Adaptor (optional) is necessary. For its connection, read the operating instructions of the RF Adaptor (VW-RF7E).
- ●When connecting the Movie Camera to a TV set with a 21 pin Scart Terminal.

</td>
</tr>
</table>

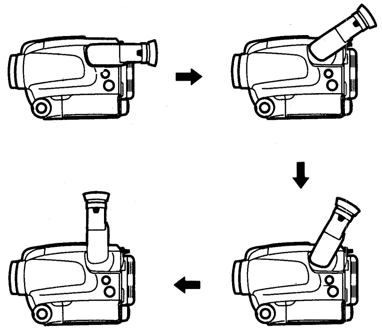


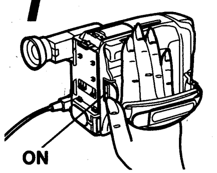
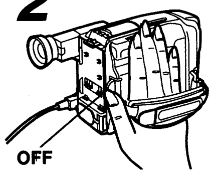
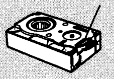
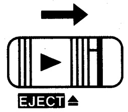
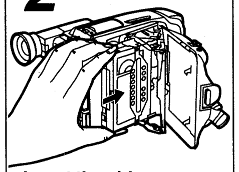
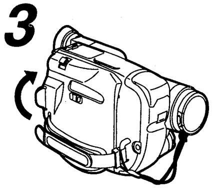
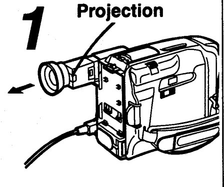
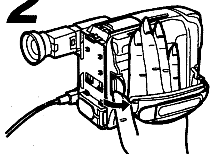
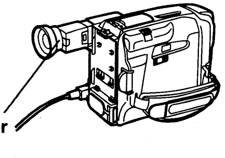
When the Power ON/OFF Switch is turned out, the Camera Indication Lamp lights up.

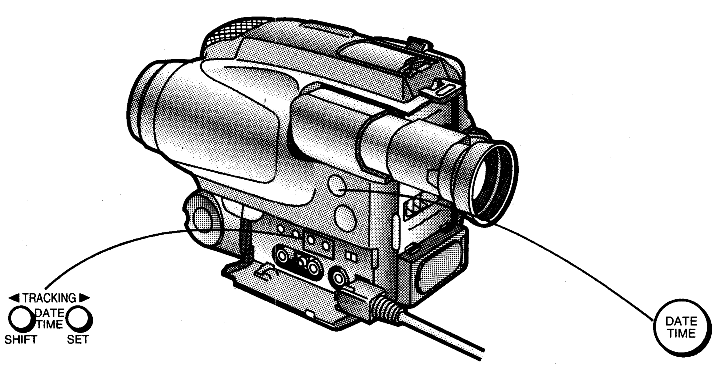
Remove the Lens Cap.

Adjusting the Angle of the Viewfinder

The tilting range if the Viewfinder is 90° (4 potions are marked by click stops).



Title	Procedure				Remarks, etc.
To Power Movie Camera ON/OFF	**1**  **ON** **Turn Power ON/OFF Switch out.**	**2**  **OFF** **Turn Power ON/OFF Switch in.**			•When turning on the Movie Camera while a video cassette is already inside, it will automatically be put in the Filming Pause Mode.
Inserting the Video Cassette Before inserting the video cassette, make sure that the tape is tight. If it is loose, turn the cog wheel in the direction of the arrow to tighten it.  	**1**  **Slide the [EJECT] Lever.**	**2**  **Insert the video cassette.**	**3**  **Close.**		**■ Ejecting the Video Cassette** Slide the [EJECT] Lever and pull out the Video Cassette. Close the Cassette Compartment Cover. •It is not possible to take out the video cassette during filming. •Do not repeatedly insert and take out the video cassette. This could cause the tape to become loose and damaged.
Adjusting the Viewfinder Grasp Projections on either side of the Viewfinder (see Fig. 1) and extend to fully locked position.	**1**  **Extend to fully locked position.**	**2**  **Turn Power ON/OFF switch out**	**3**  **While looking into the Viewfinder, turn the Corrector Ring until the Indications in the Viewfinder can be seen most clearly.**		•When extending the Viewfinder, do not grasp it by the Eyecup, because the Eyecup could become detached from the Viewfinder. •Do not apply any pressure on the Viewfinder except when extending or retracting it. •Be sure to retract the Viewfinder after filming.


◄TRACKING►
DATE
TIME
SHIFT
SET
DATE
TIME

The Built-in Lithium Battery

A built-in rechargeable lithium battery maintains the operation of the built-in clock when the Movie Camera is turned off. When the Movie Camera is in operation, this battery is recharged automatically. However, if the Movie Camera is not used for a very long time, the lithium battery can become exhausted. In this case, the Indication " ⊗ " in the Viewfinder flashes and the date and time return to the initial Indication "1. 1. 1990".

If the Indication " ⊗ " in the Viewfinder flashes for approx. 10 seconds when turning the Movie Camera on the lithium battery needs to be recharged as follows:

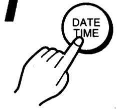
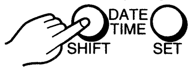
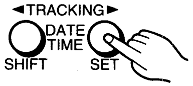
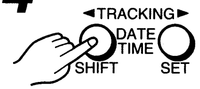
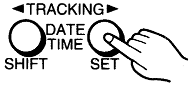
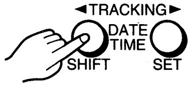
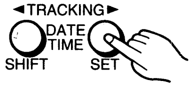
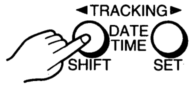
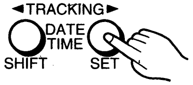
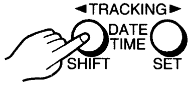
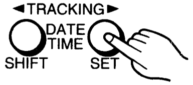
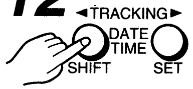
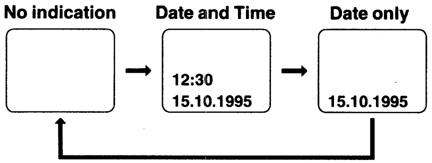
1 **Connect the Movie Camera to the AC Adaptor.**

2 **Switch on the Movie Camera.**

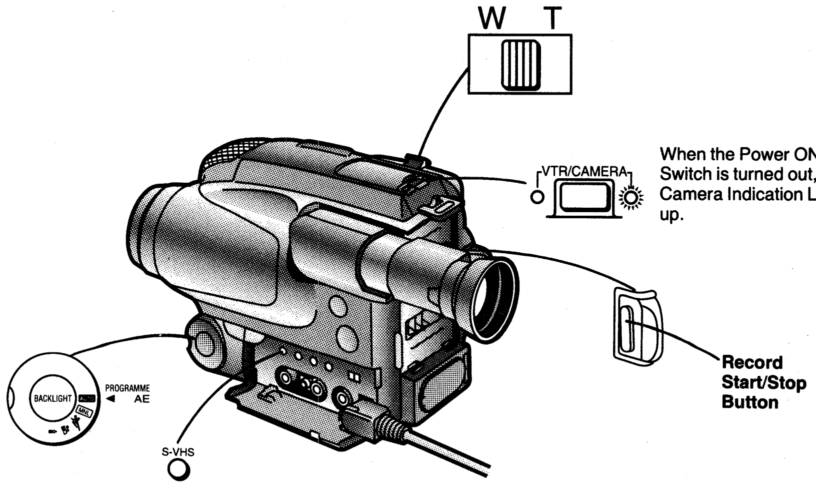
3 **Take out the Video Cassette and wait for approx. 4 hours.**
- ●After the lithium battery has been charged for approx. 4 hours, it can maintain the operation of the clock for approx. three months.

Information for your safety

WARNING
THE LITHIUM BATTERY IN THIS EQUIPMENT MUST ONLY BE REPLACED BY QUALIFIED PERSONNEL. WHEN NECESSARY, CONTACT YOUR LOCAL PANASONIC SUPPLIER.

Title	*Procedure*	*Remarks, etc.*
Setting the Date and Time Before setting, attach the charged Battery Pack or connect the AC Adaptor to the Movie Camera and turn the Movie Camera on. **For example:** To set the clock to October 15, 1995, 12:30...	***1***  **Press the [DATE/TIME] Button.** ***2***  ◄TRACKING► DATE TIME SHIFT SET **Keep pressed to make the "Year" portion flash.** ***3***  ◄TRACKING► DATE TIME SHIFT SET **Press to set to "1995".** ***4***  ◄TRACKING► DATE TIME SHIFT SET **Press to make the "Month" portion flash.** ***5***  ◄TRACKING► DATE TIME SHIFT SET **Press to set to "10".** ***6***  ◄TRACKING► DATE TIME SHIFT SET **Press to make the "Day" portion flash.** ***7***  ◄TRACKING► DATE TIME SHIFT SET **Press to set to "15".** ***8***  ◄TRACKING► DATE TIME SHIFT SET **Press to make the "Hour" portion flash.** ***9***  ◄TRACKING► DATE TIME SHIFT SET **Press to set to "12".** ***10***  ◄TRACKING► DATE TIME SHIFT SET **Press to make the "Minute" portion flash.** ***11***  ◄TRACKING► DATE TIME SHIFT SET **Press to set to "30".** ***12***  ◄TRACKING► DATE TIME SHIFT SET **Press to start the clock.**	**■ Changing the Figures of the Date/Time Indication** By pressing the [SET] Button repeatedly, the Date/Time Indication can be changed in the following order. For example: Year: **1990**→1991→ ....2089→**1990**→... Month: **1**→2→ ....→12→**1**→... Day: **1**→2→ ....→31→**1**→... Hour: **0**→1→ ....→23→**0**→... Minute: **00**→01→................→59→**00**→... ●When the [SET] Button is kept pressed, the figures change more quickly. ●If you make a mistake during setting, start again from the beginning.
Inserting and Deleting the Date and Time The Date and Time Indications can be inserted and deleted during filming as well as in the Filming Pause Mode.	By pressing this button repeatedly, the Date/Time Indication in the Viewfinder can be changed in the following order. Select the desired indication.  No indication Date and Time Date only 12:30 15.10.1995 15.10.1995	

Movie Camera Set-Up complete, now ready to use.

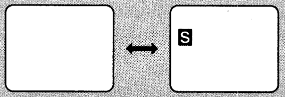
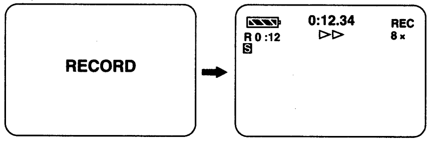
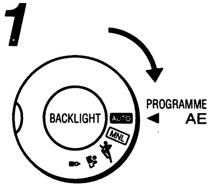
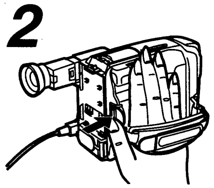
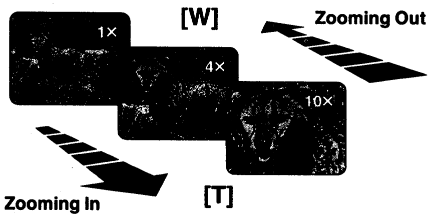
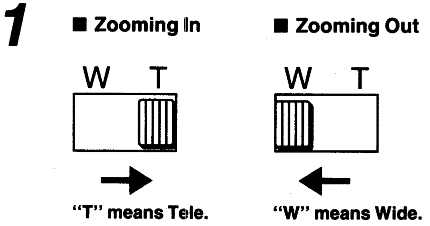
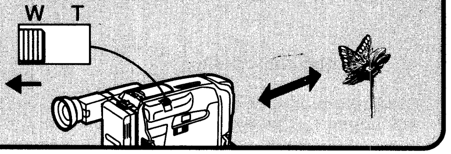


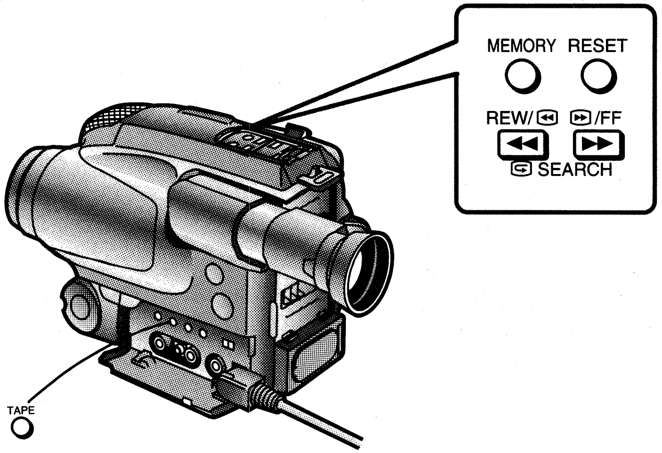
When the Power ON/OFF Switch is turned out, the Camera Indication Lamp lights up.

Index Signals (VISS)

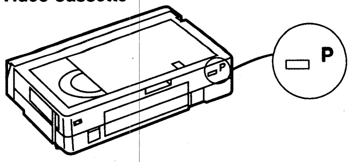
The "INDEX" Indication appears briefly in the Viewfinder while an index signal is being recorded. The index signals make possible the use of the VHS Index Search or Intro Scan Function when playing back the tape on a VTR equipped with these functions.
An index signal is recorded automatically in the following cases:

- When recording is started for the first time after attaching the Battery Pack.
- When recording is restarted after exchanging the cassette or after pressing the [VTR/CAMERA] Button.

Title	*Viewfinder*	*Procedure*	*Remarks, etc.*
Starting Filming (Recording)  By pressing the [S-VHS] Button repeatedly, the recording format can be changed between the S-VHS mode and the VHS mode. When the S-VHS mode is selected, the indication "S" is displayed in the Viewfinder. (However, when a normal VHS-C video cassette is inserted in the Movie Camera, the indication "S" does not appear, because recording in the S-VHS mode is not possible on a normal VHS-C video cassette.)	 For the detailed explanations for each indication in the Viewfinder, see p. 16. Shown above is a typical example of the indications visible when filming in the Auto Mode.	**1**  **Confirm that the [AE] Dial is set to "AUTO".** **2**  **Press Record Start/Stop Button.**	**■ To Pause the Filming** Press the Record Start/Stop Button again. The "PAUSE" Indication appears in the Viewfinder. • If the Movie Camera is left in the Filming Pause Mode for more than 6 minutes, it will automatically switch off to protect the tape and to conserve battery power. To resume filming from this condition, turn the Power ON/OFF Switch in (the Movie Camera is switched off) and then turn it out again. **■ To Stop Filming** Turn the Power ON/OFF Switch in.
Making the Subject Larger or Smaller During Filming **This Function also operates in the Filming Pause Mode.** • The zoom range extends from 1× to 10×. • In the maximum tele setting, the focus can be adjusted only for subjects at a distance of more than 1.5 m from the lens.	 • The Zoom Magnification Indication in the Viewfinder changes.	**1**  "T" means Tele. "W" means Wide. • The zooming speed varies depending on how far the [W • T] Zoom Lever is pushed towards "W" or "T". (The further it is pushed, the faster the zooming speed becomes.)	**■ Using the Macro Close-up Function** After keeping the [W • T] Zoom Lever pressed toward "W" to zoom to the maximum wide-angle setting, the subject can be focussed down to a minimum distance of only 5 mm between lens and subject. • As the depth of field is very small in this mode, even slight camera movements can cause the subject to go out of focus. Therefore, it is recommended to use a tripod (optional). • When filming pictures in a photo album or a similar situation with insufficient lighting, use a Video DC Light (optional). 

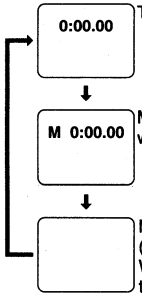


Video Cassette



When using a video cassette carrying the "P" mark or an S-VHS-C video cassette, the Remaining Tape Counter Indication may not be very precise.

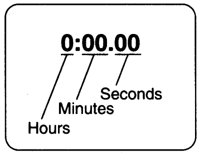
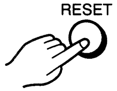
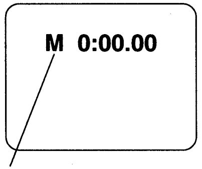
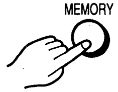
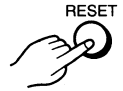
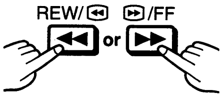
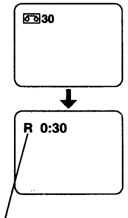
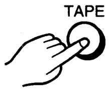
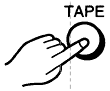
At every press of the [MEMORY] Button, the Counter Indication will change as follows:



Tape Counter Indication

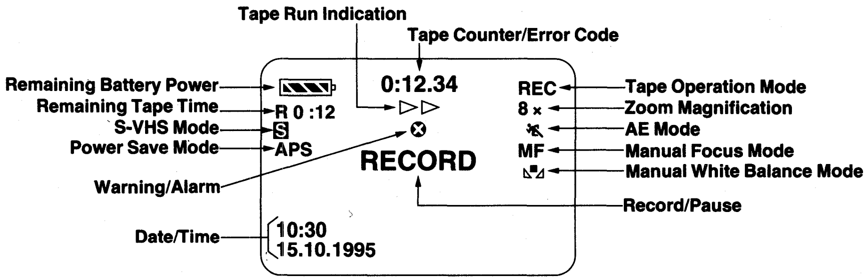
Memory Indication "M" appears with Tape Counter Indication

No Indication (All Indications except the Warning/Alarm Indications and the Tape Running Indications will disappear.)

Title	*Viewfinder*	*Procedure*			*Remarks, etc.*
Using the Tape Counter Indication The Tape Counter in the Viewfinder shows the elapsed recording or playback time in hours, minutes and seconds. Resetting the Tape Counter to "0:00.00" by pressing the [RESET] Button before starting to film makes it easy to keep track of the elapsed recording time.		***1*** ■ **To Reset the Tape Counter:** 			•The Tape Counter Indication does not change during playback of tape on which recording has never been made. •Taking out the Cassette or removing the Battery Pack automatically resets the Tape Counter Indication to "0:00.00". •When the tape is rewound further than the tape counter position "0:00.00", the minus sign "–" appears in front of the Tape Counter Indication.
Using the Memory Function When the Tape Counter is reset to "0:00.00" at the beginning of the desired scene and the Memory Indication "M" is turned on, the tape will stop automatically at the "0:00.00" position when rewinding or fast-forwarding it.	 Means: Memory	***1*** ■ **To Make the "M" Indication Appear:** 	***2*** ■ **To Reset the Tape Counter:** 	***3*** 	
Confirming the Remaining Tape Time During recording or playback, the Remaining Tape Time is automatically displayed in the Viewfinder.	 Means: Remaining	***1***  Select the Tape Length Indication ("▣ 30" or "▣ 45") that matches the Video Cassette being used.	■ **To Check the Tape Length of the Video Cassette Being Used while the Remaining Tape Time is Displayed:**  The Tape Length Indication "▣ 30" or "▣ 45" is displayed for approx. 2 seconds, and then the Remaining Tape Time Indication will again appear instead of it.		•While the Movie Camera calculates the Remaining Tape Time, the "R" Indication flashes in the Viewfinder. •When the Remaining Tape Time becomes less than 2 minutes, the Indication "R" and the Remaining Tape Time start to flash. ■ **When Inserting an EC45-type Video Cassette** Press the [TAPE] Button to change the Tape Length Indication in the Viewfinder to "▣ 45" so that the Remaining Tape Time Indication will be correct.

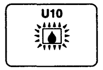
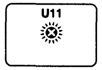
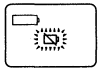
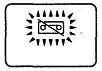
Quick Reference Guide to the Indications in the Viewfinder

The following indications are displayed in the Viewfinder to inform you about the condition of the Movie Camera.

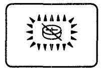
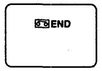
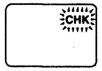

Tape Run Indication
Tape Counter/Error Code
Remaining Battery Power
Remaining Tape Time
S-VHS Mode
Power Save Mode
Warning/Alarm
Date/Time
0:12.34
R 0 :12
S
APS
RECORD
REC
8 ×
MF
10:30
15.10.1995
Tape Operation Mode
Zoom Magnification
AE Mode
Manual Focus Mode
Manual White Balance Mode
Record/Pause

- The illustrations in the following explanations show only the indication(s) pertaining to the corresponding explanation.

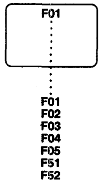
1 Warning/Alarm Indications

Viewfinder	Condition
	**Condensation** Condensation has formed inside the Movie Camera. Wait until the "U 10/ ▲ " Indication disappears.
	**Video Head Clogging** The video heads are dirty.
	**Remaining Battery Power** The 4 segments of the Remaining Battery Power Indication begin to disappear one after another as the power of the Battery Pack weakens. When only the last segment remains, the " ▭ " Indication starts to flash in the centre of the Viewfinder. When the last segment has disappeared, the "CAMERA" Indication Lamp flashes for a few seconds, and then the Movie Camera automatically switches itself off. Replace the exhausted Battery Pack with a fully charged one.
	**Tape** When no video cassette is inserted or when the tab of the inserted video cassette is broken out, this indication flashes. Insert a video cassette with intact tab.

1 Warning/Alarm Indications (cont.)

Viewfinder	Condition
	**Built-in Lithium Battery** The Built-in Lithium Battery is exhausted. Recharge it.
	**End of the Tape** When the tape has reached its end, indication appears. Insert a new cassette.
	**Anti-Ground-Filming** When the Movie Camera is tilted more than about 70° from its normal horizontal position during filming (with the [POWER SAVE] Switch set to "ON"), the Movie Camera automatically switches over to the Filming Pause Mode. If the Movie Camera is then returned to its normal horizontal filming position, the "CHK" Indication will flash in the Viewfinder.

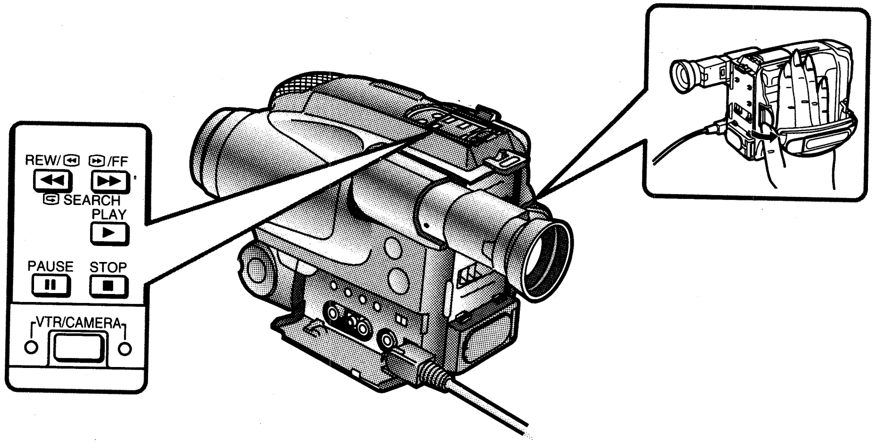
2 Error Code Indications

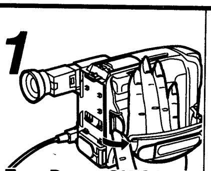
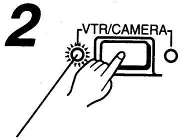
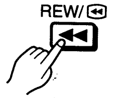
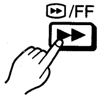
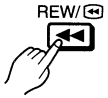
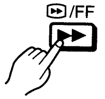
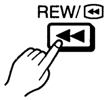
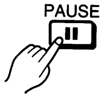
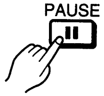
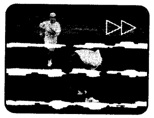
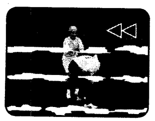
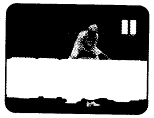
Viewfinder	Condition
 F01 F01 F02 F03 F04 F05 F51 F52	**Error Code** When the "F" Indication appears in the Viewfinder, some malfunction has occurred. If the indicated error code is between "F01" and "F05", the Movie Camera will turn itself off automatically one minute after the "CAMERA" Lamp has started to flash. (When the indication is "F51" or "F52", the Movie Camera will not turn off automatically.) In this case, write down the error code and tell it to the service personnel.

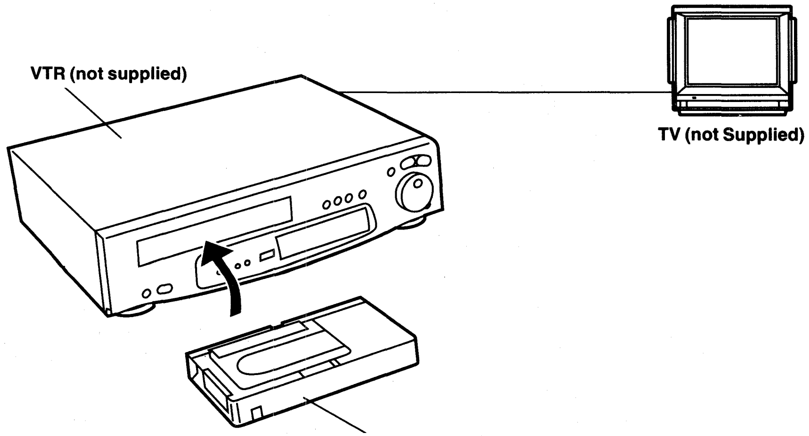
Quick Reference Guide to the Indications in the Viewfinder (cont.)

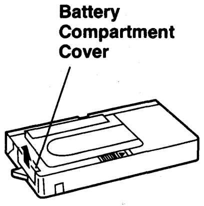
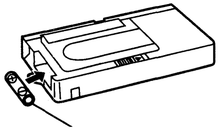
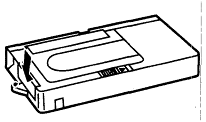
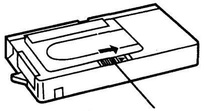
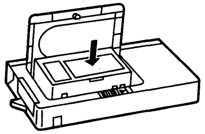
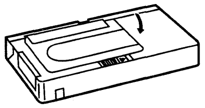
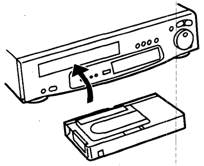
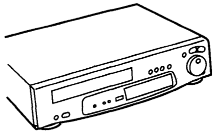
3 Filming/Playback Indications

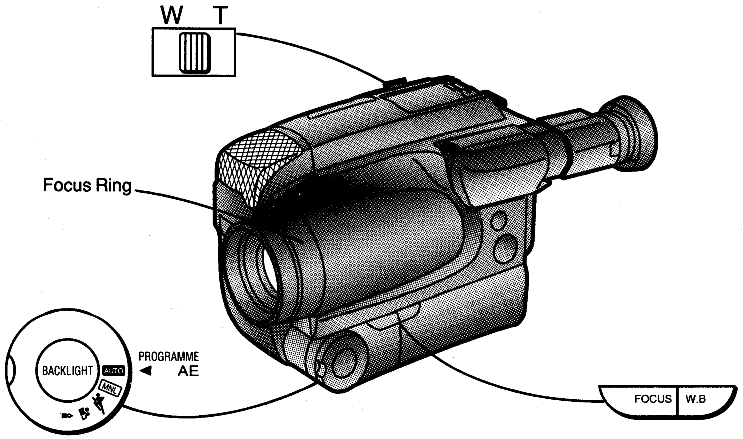
Viewfinder	Condition
RECORD	**Filming Mode (large indication)** When the Record Start/Stop Button is pressed from the Filming Pause Mode, this indication is displayed for approx. 1 second.
REC	**Filming Mode (small indication)** "REC" means Recording.
▷▷	**Tape Run Indication**
PAUSE	**Filming Pause Mode (large indication)** When the Record Start/Stop Button is pressed from the Filming Mode, this indication is displayed for approx. 1 second.
PAUSE	**Filming Pause Mode (small indication)**
CHK	**Rec Check Mode** "CHK" means Check.
▷	**Playback/Search Mode**
▷▷	**Fast Forward/Cue Mode**
◁◁	**Rewind/Review/Search Mode**
❚❚	**Still Playback Mode**
0:00.00	**Tape Counter**
M 0:00.00	**Tape Counter with activated Memory Function** "M" means Memory.
R 0:30	**Remaining Tape Time** "R" means Remaining.
30	**Tape Length** The Tape Length Indication can be selected with the [TAPE] Button.
12:30 15.10.1995	**Date and Time**
10×	**Zoom Magnification** When zooming in on a subject, the indicated zoom magnification value increases.
	Manual White Balance Mode
MNL	**Manual Filming Mode** "MNL" means Manual.
	Sports Mode This indication is displayed when the Sports Mode has been selected.
	Portrait Mode This indication is displayed when the Portrait Mode has been selected.
	Low Light Mode This indication is displayed when the Low Light Mode has been selected.
MF	**Manual Focus Mode** "MF" means Manual Focus.
INDEX	**Index** While this indication is visible, an index signal is being recorded.
APS	**Power Save Mode** This Indication is displayed when the [POWER SAVE] Switch set to "ON".
S	**S-VHS Format**

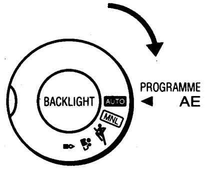
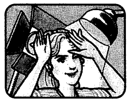
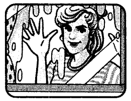
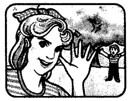
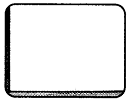
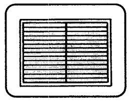
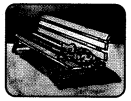
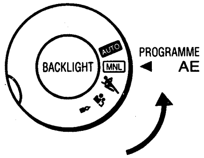
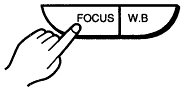
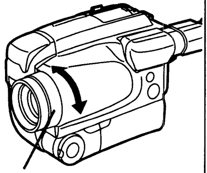
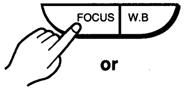
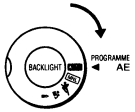


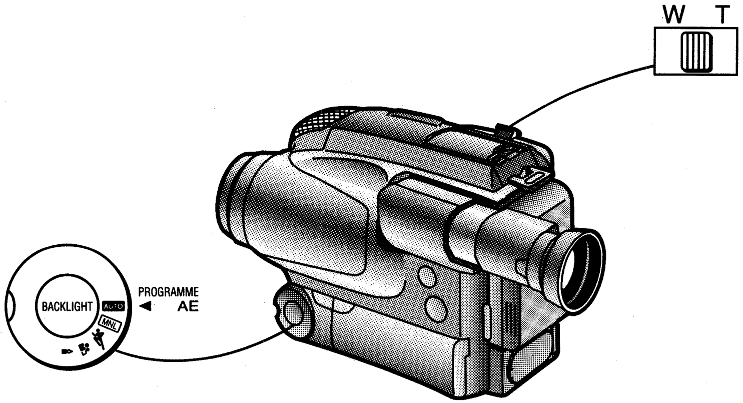
Title	Procedure				Remarks, etc.
Playing Back on the Viewfinder or the TV **[To Play Back Via TV Set]** 1. Connect the Movie Camera to a TV set. 2. Follow steps 1 through 4 opposite.	**1**  **Turn Power ON/OFF switch out.**	**2**  **The "VTR" Indication Lamp lights up.**	**3**  **The tape will stop automatically when it reaches the beginning.**	**4**	• When the tape reaches its end during playback, it will be rewound automatically. **■ To Stop the Playback** Press the [STOP] Button.
Rewinding or Fast-Forwarding the Tape Perform these operations with the Movie Camera in the VTR Stop Mode ("VTR" Indication Lamp is lit).	**■ For Fast-Forward** 	**■ For Rewind** 			• When the tape reaches its end during Fast-Forward, it will be rewound automatically. • When the tape reaches the beginning during Rewind, it will stop automatically.
Using the Cue, Review and Still Playback Functions During Normal Playback	**■ For Cue Playback**  **Keep pressed.**	**■ For Review Playback**  **Keep pressed.**	**■ For Still Playback** 	**To return to normal playback** 	• The sound will be played back only during normal playback. • In the Cue, Review and Still Playback Modes, horizontal noise bars appear in the picture, or the picture may become black and white or distorted. However, this is normal and not a malfunction. • If the Movie Camera is left in the Still Playback Mode for about 6 minutes, it will switch over to the Stop Mode to protect the tape and the video heads.
	Cue Playback Mode 	**Review Playback Mode** 	**Still Playback Mode** 		



Title	Procedure	Remarks, etc.
Playing Back on VTR, use the Supplied Cassette Adaptor	**1**  **Remove the Battery Compartment Cover.** **2**  **Insert the Battery (R6).** **3**  **Re-attach the Battery Compartment Cover.** **4**  **Slide the Open Lever.** **5**  **Insert the recorded video cassette.** **6**  **Close the Top Cover.** **7**  **Insert the Cassette Adaptor into the VTR.** **8**  **Operate the VTR.**	• For optimum picture quality, it may be necessary to adjust the tracking control on the VTR. • Never insert the empty Cassette Adaptor (without a video cassette) into a VTR. • Do not insert the Cassette Adaptor into a VTR and take it out again without running the tape, because this could loosen the tape. • When loading the video cassette into the Cassette Adaptor, do not touch the tape directly. • After use, take the video cassette out from the Cassette Adaptor. • When using an S-VHS-C video cassette that you want to play back on a standard VHS VTR (carrying the VHS logo), be sure to set the Movie Camera to the VHS mode. If an S-VHS recording is played back on a standard VHS VTR, the picture will be totally distorted. A standard VHS VTR that also carries the "SQPB" logo (S-VHS-Quasi Playback), on the other hand, is capable of playing back S-VHS recordings.

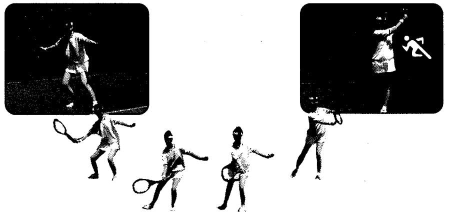
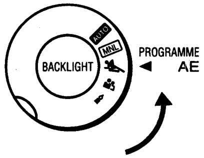
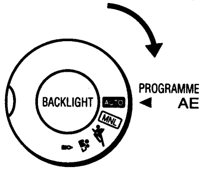
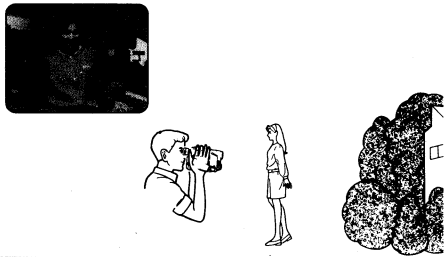
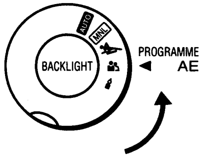
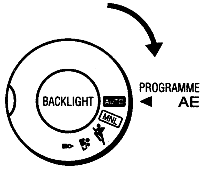
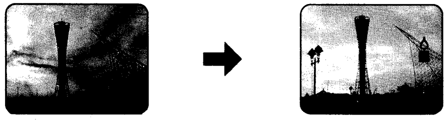
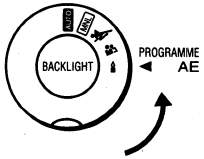
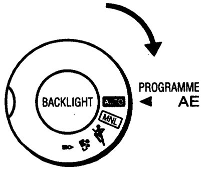


Title	Procedure				Remarks, etc.
Filming with the Auto Focus Mode When the [AE] Dial is set to "AUTO", the Movie Camera will automatically focus precisely on almost any subject located in the centre of the Viewfinder. • If you want to film with automatic focussing in one of the other settings of the [AE] Dial, press the [FOCUS] Button to make the "MF" Indication in the Viewfinder disappear.	***1***  		**In the following filming situations, use the Manual Focus Mode:** ①  ②  ③  ④  ⑤  ⑥ 		① A subject with shiny surfaces or much light reflection ② A subject behind glass that is covered with dirt, dust or water drops ③ A subject with a part of it near the Movie Camera and another parts far away from it. ④ A flat surface, e.g. a white wall ⑤ A subject with horizontal stripes ⑥ An oblique subject • A fast-moving subject • A subject with a dark surface • When using the Macro Close-up Function, special lenses or filters
Filming with the Manual Focus Mode	***1***  **The "MNL" Indication appears in the Viewfinder.**	***2***  **The "MF" Indication appears in the Viewfinder.**	***3***  **Focus Ring** **Adjust the Focus Ring until the subject is in focus.**	■ **To Cancel the Manual Focus Mode**  **or**  **Press the [FOCUS] Button to make the "MF" Indication disappear. Or reset the [AE] Dial to "AUTO".**	■ **Hints for Manual Focus Adjustment** ① ② ① Be sure to adjust the focus after zooming in on the subject. ② Adjusting the focus with the lens zoomed in on the subject assures precisely focussed pictures even when subsequently zooming back. • If the focus is adjusted with the lens in the wide-angle setting, the subject may go out of focus when zooming in on the subject.

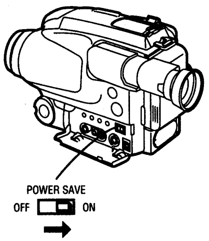


Notes for Use of the Sports Mode

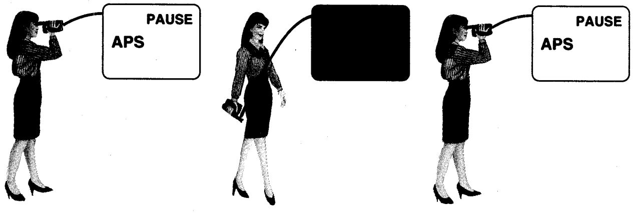
- The subject must be brightly lit by sunlight or a Video DC Light (optional), with little shade.
- When filming under fluorescent, mercury-vapor or natrium lamps, the picture will be adversely influenced by flickering.
- When a scene filmed in the Sports Mode is played back in the normal playback mode, the picture movement may not be as smooth as normal.
- If the picture is recorded with high shutter speed, the playback picture will be slightly darker.

Title	*Viewfinder*	*Procedure*		*Remarks, etc.*
Filming Fast-Moving Subjects ■ **Using the Sports Mode** This function makes it possible to obtain pictures with minimized blur when filming fast-action scenes such as tennis or other types of sports. When scenes recorded with the Sports Mode are later played back on a VTR, still and slow motion playback with very sharp picture contours and brilliant details can be obtained.		**1** 	**To Return to the Normal Filming Mode** 	• In the Sports Mode, the shutter speed is automatically adjusted (between 1/50 s and 1/500 s) according to the brightness of the scene, so even fast movements will be captured in sharp and stable pictures. • If the surrounding illumination is weak, the " 🏃 " Indication flashes. In this case, the Sport Mode may not be effective.
Making People Stand out Sharply from the Background ■ **Using the Portrait Mode** In the Portrait Mode, the Iris is automatically set to its maximum opening which results in a very small depth-of-field. This causes the subject in the center of the picture to be sharply focussed while the background is blurred.		**1** 	**To Return to the Normal Filming Mode** 	• The shutter speed is automatically adjusted between 1/50 s and 1/1500 s according to the brightness of the subject. • Zooming in on the subject by pushing the [W • T] Zoom Lever toward "T" increases the blurring of the background.
Filming Dark Scenes More Brightly ■ **Using the Low Light Mode** This increases the sensitivity and brightens up the picture.		**1** 	**To Return to the Normal Filming Mode** 	• Even if this mode is used for outdoor filming in daylight, the result will be almost the same as when filming in the other mode.

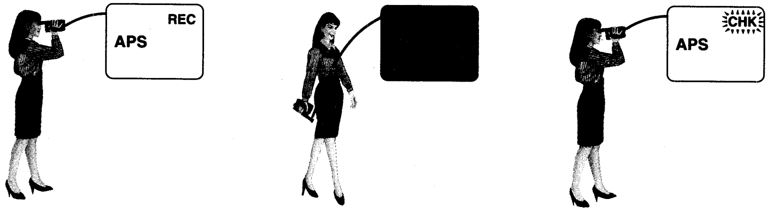
Using the Power Save Functions

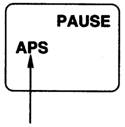
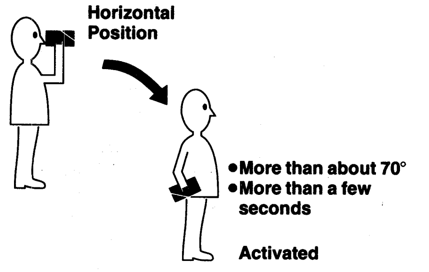
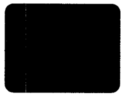
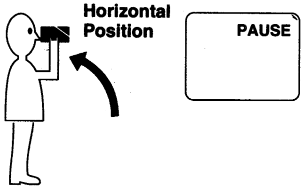
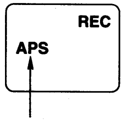
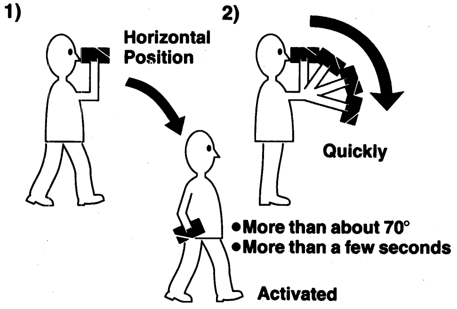
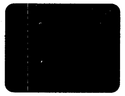
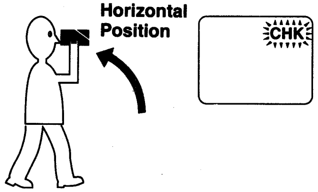
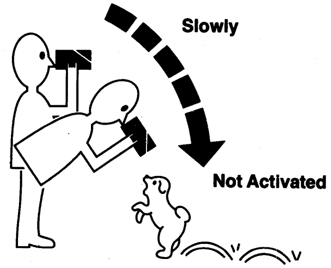

POWER SAVE
OFF
ON

❶ Auto Power Save (in the Filming Pause Mode)


PAUSE
APS
PAUSE
APS

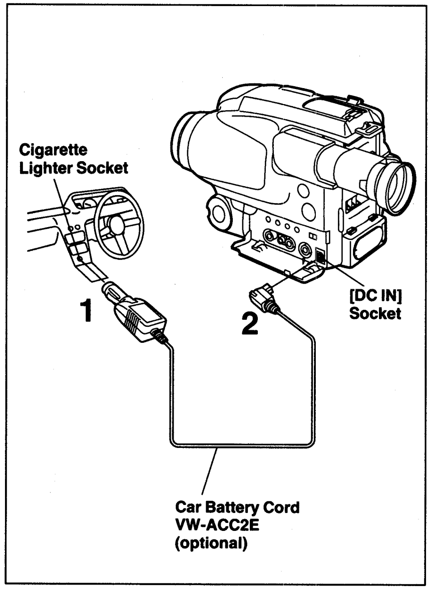
❷ Anti-Ground-Filming (in the Filming Mode)


REC
APS
CHK
APS

	Movie Camera Mode	Becomes Activated:	Conditions of Movie Camera	Result	To Resume Filming	Operating Restrictions
❶ Auto Power Save Function	**During Filming Pause** **Viewfinder**  The "APS" Indication is displayed.	 Horizontal Position •More than about 70° •More than a few seconds Activated •When Movie Camera is tilted downwards by more than about 70° from the normal horizontal filming position for more than a few seconds.	 •Viewfinder: OFF •Auto Focus: OFF •Zoom Motor: OFF •VTR Indication: Flash (Green) 	•**Saving Power** The Battery Pack can be used longer for filming. •**Preventing Lengthy Filming of the Ground** The Movie Camera automatically prevents filming even when the Record Start/Stop Button is pressed accidentally.	 Horizontal Position PAUSE •When the Movie Camera is returned to an approximately horizontal position, the Movie Camera is automatically put into the Filming Pause Mode and the filming can be restarted by pressing the Record Start/Stop Button.	
❷ Anti-Ground-Filming Function	**During Filming** **Viewfinder**  The "APS" Indication is displayed.	 1) 2) Horizontal Position Quickly •More than about 70° •More than a few seconds Activated •When tilting the Movie Camera downwards by more than about 70° from the normal horizontal filming position for more than a few seconds, and: 1) Walking with the Movie Camera held in the hand or; 2) tilting the Movie Camera quickly in the case of not walking.	 •Viewfinder: OFF •Auto Focus: OFF •Zoom Motor: OFF •Filming Mode ↓ Filming Pause Mode •VTR Indication: Flash (Green) 	•**Saving Power** The Battery Pack can be used longer for filming. •**Preventing Lengthy Filming of the Ground** The Movie Camera automatically switches over to the Filming Pause Mode to stop the unintentional filming when forgetting to press the Record Start/Stop Button at the end of a scene.	 Horizontal Position CHK •When the Movie Camera is returned to an approximately horizontal position, the "CHK" (=check) Indication will flash in the Viewfinder. Since the filming may have continued for several seconds, rewind the tape a little using the Camera Search Function to locate the exact end of the last desired scene, and then start filming again.	When slowly tilting the Movie Camera downwards during filming.  Slowly Not Activated •This function is designed so that it is not activated when the Movie Camera is slowly tilted downwards during filming. •The Anti-Ground-Filming feature is not intended to replace the manual stopping of filming.

Note: When changing locations between scenes or when not planning to film for a longer period of time, it is recommended to turn off the Movie Camera with the Power ON/OFF Switch.

Using the Car Battery Cord (Optional)


Cigarette Lighter Socket
1
2
[DC IN] Socket
Car Battery Cord VW-ACC2E (optional)

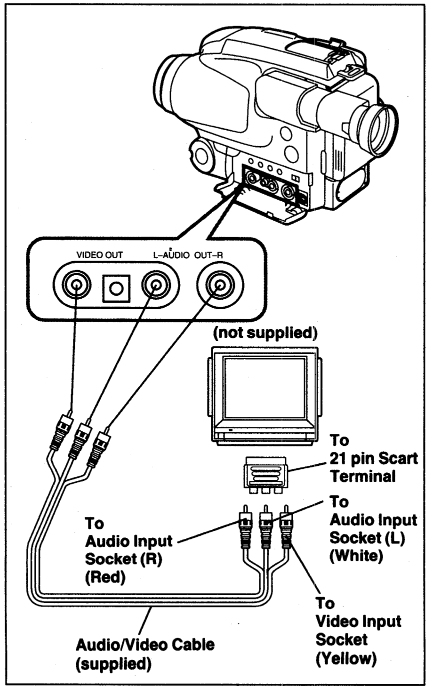
Notes:

1. The Car Battery Cord can only be used with 12 V DC negative-grounded vehicles.
2. Do not start the car engine while the Movie Camera is being powered by the car battery.
3. If the voltage drops suddenly e.g. because the car air-conditioner is turned on, the Movie Camera is automatically turned off to protect it. Wait about 10 seconds before turning it on again.
4. Some cars, RVs and campervans use 24 V. Please confirm with vendor that your vehicle uses 12 V before using the Car Battery Cord. If used on 24 V, damage may occur and is not covered by warranty.

1 **Start the engine and then plug the Car Battery Cord into the Cigarette Lighter Socket.**

2 **Connect the other end of cord to the DC Input Socket on the Movie Camera.**

Playing back on a TV Set with 21 pin Scart Terminal

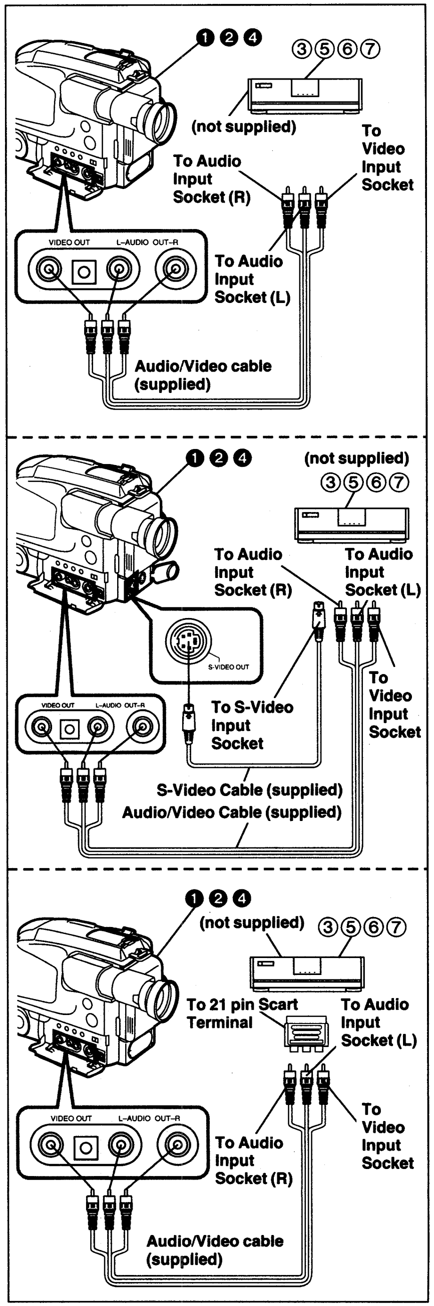

VIDEO OUT
L-AUDIO OUT-R
(not supplied)
To 21 pin Scart Terminal
To Audio Input Socket (L) (White)
To Audio Input Socket (R) (Red)
To Video Input Socket (Yellow)
Audio/Video Cable (supplied)

Using the Supplied 21 pin Adaptor and Audio/Video Cable

Connect after turning off the Movie Camera and the TV Set.

■ Activate the Playback Operation

Editing a Previously Recorded Tape


❶❷❹
③⑤⑥⑦
(not supplied)
To Video Input Socket
To Audio Input Socket (R)
VIDEO OUT
L-AUDIO OUT-R
To Audio Input Socket (L)
Audio/Video cable (supplied)
❶❷❹
(not supplied)
③⑤⑥⑦
To Audio Input Socket (R)
To Audio Input Socket (L)
S-VIDEO OUT
To Video Input Socket
VIDEO OUT
L-AUDIO OUT-R
To S-Video Input Socket
S-Video Cable (supplied)
Audio/Video Cable (supplied)
❶❷❹
(not supplied)
③⑤⑥⑦
To 21 pin Scart Terminal
To Audio Input Socket (L)
To Video Input Socket
VIDEO OUT
L-AUDIO OUT-R
To Audio Input Socket (R)
Audio/Video cable (supplied)

Connect the Movie Camera to the VTR using the Supplied Audio/Video Cable, S-Video Cable or 21 pin-Adaptor.

■ Operations

Playback Unit (Movie Camera): ❶❷❹

Recording Unit (VTR): ③⑤⑥⑦

❶ Insert the recorded video cassette for playback into the Movie Camera.
Find the point on the tape where you want to cut and note the tape counter position.

❷ Rewind the tape and find the point where the dubbing is to start.

③ Insert the video cassette for recording into the VTR and put it in the Recording Pause Mode. Also read the Operating Instructions of the VTR.
The picture quality deteriorates slightly in the dubbing process, however, this can be minimized by selecting the standard recording speed (SP Mode) on the VTR.

❹ Start the playback.

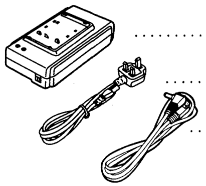
⑤ Press the Pause/Still Button to start recording.

⑥ Press the Pause/Still Button at the point where the dubbing is to end.
The VTR is now in the recording pause mode.

⑦ When the next scene which you want to record appears, press the Pause/Still Button one more time.

Check List for the Standard Accessories

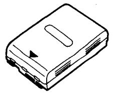
AC Adaptor Set



AC Adaptor
(VSK0317)

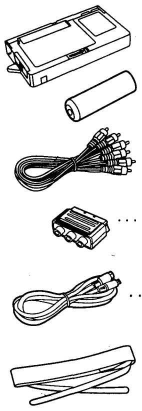
Mains Cable
(VJA0733)

DC Input Cable
(VJA0769)



Battery Pack
(VSB0200)

- When purchasing an additional AC Adaptor, order model number VW-AS4E.
- For Purchasing additional Battery Packs, see the list of optional accessories.



Cassette Adaptor
(VW-TCA7E)

Battery
(R6)

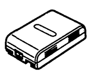
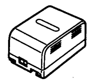
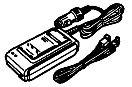
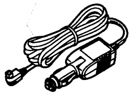
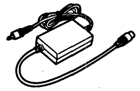
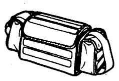
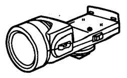
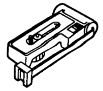
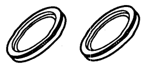
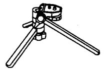
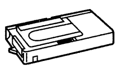
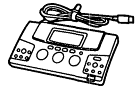
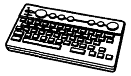
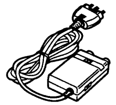
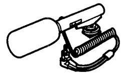
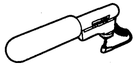
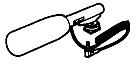
Audio/Video Cable
(VJA0788)

21 pin Adaptor
(VFA0151)

S-Video Cable
(VJA0658)

Shoulder Strap
(VFC1757)

Optional Accessories

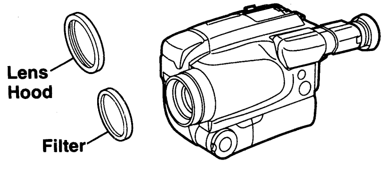
Battery Pack VW-VBS10E VW-VBH10E 	Battery Pack VW-VBS20E VW-VBH20E 	Car Battery Charger VW-KBC2E 	Car Battery Cord VW-ACC2E 	5 Pin Synchro Cord VW-K10E 
System Case VW-SHCS5E 	Soft Bag VW-SBS5E 	Video DC Light VZ-LDCS13E 	Shoe Adaptor VW-SK9E 	Filter Kit VW-LF37E 
Special Effect Filter Kit (A) VW-LFA37E 	Special Effect Filter Kit (B) VW-LFB37E 	Tele Conversion Lens VW-LT3714E 	Wide Conversion Lens VW-LW3707E 	Standard Tripod VZ-CT55E
Deluxe Tripod VZ-CT75E 	Table Tripod VZ-CTT1E 	Cassette Adaptor VW-TCA7E 	Editing Controller VW-EC310E 	Editing Controller VW-EC1E 
Video Titler VW-VT1B 	RF Adaptor VW-RF7E 	Microphone RP-VMS65E (Stereo-type) 	Microphone RP-VM130E (Mono-type) 	Microphone RP-VM70E (Mono-type) 

Notes:
- Consult your dealer for details of other accessories not listed here.
- When using the Video DC Light and the microphone, the Shoe Adaptor (optional) is necessary.
- Some accessories listed above may not be available in some countries.

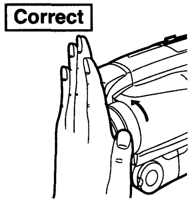
Battery Pack No.	Charging Time	Max. Filming Time
VW-VBS10E	Approx. 65 min.	Approx. 45 min.
VW-VBS20E	Approx. 130 min.	Approx. 90 min.
VW-VBH10E	Approx. 80 min.	Approx. 55 min.
VW-VBH20E	Approx. 160 min.	Approx. 110 min.

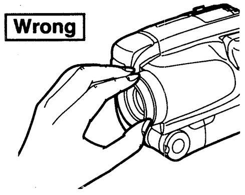
■ Lens Hood

Before attaching an optional filter or conversion lens, first remove the Lens Hood from the Movie Camera.



- To remove the Lens Hood, press with the palm of your hand against it and turn in the direction of the arrow.





SECTION 2
ADJUSTMENT PROCEDURES

2-1. DISASSEMBLY PROCEDURES

2-1-1. DISASSEMBLY FLOW CHART

The following flow chart describes the steps for removing cabinet parts and printed circuit boards to gain access to the items needing service.
To reassemble the unit, follow the steps in reverse order.

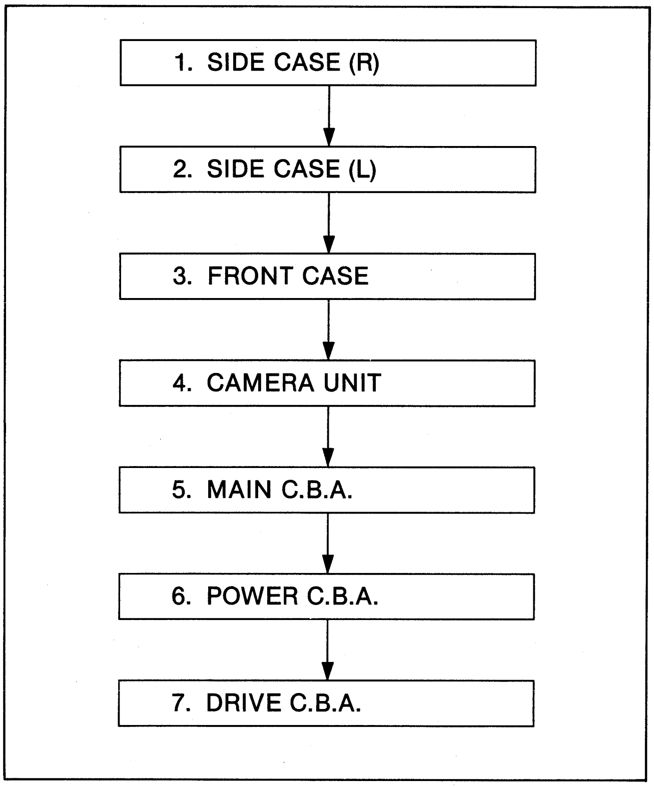

1. SIDE CASE (R)
2. SIDE CASE (L)
3. FRONT CASE
4. CAMERA UNIT
5. MAIN C.B.A.
6. POWER C.B.A.
7. DRIVE C.B.A.

Fig. D1

2-1-2. DETAILED DISASSEMBLY METHOD

1. Removal of Side Case (R).

(See Fig. D2)
(1). Remove ...... Screw(A), (B) and Screw(C).

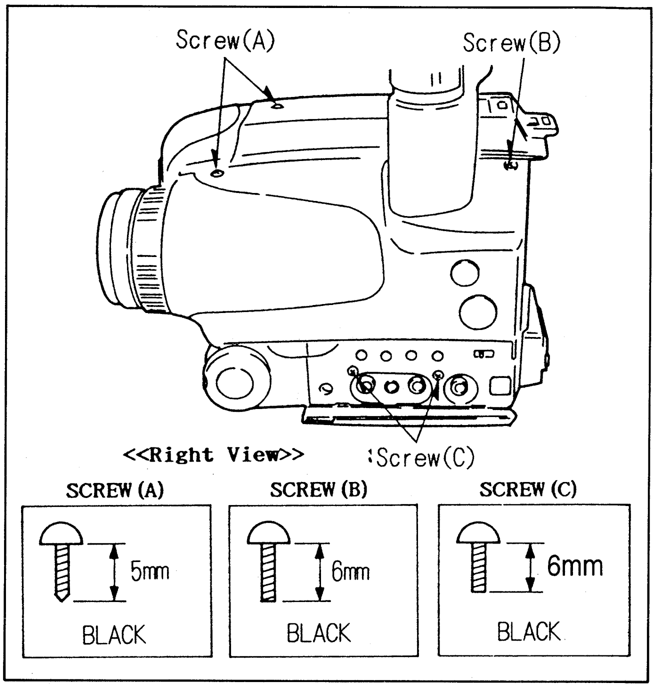

Screw(A)
Screw(B)
<<Right View>>
Screw(C)
SCREW (A)
5mm
BLACK
SCREW (B)
6mm
BLACK
SCREW (C)
6mm
BLACK

Fig. D2

(See Fig. D3)
(2). Remove ...... Screws(D), (E), (F) and Screws(G)

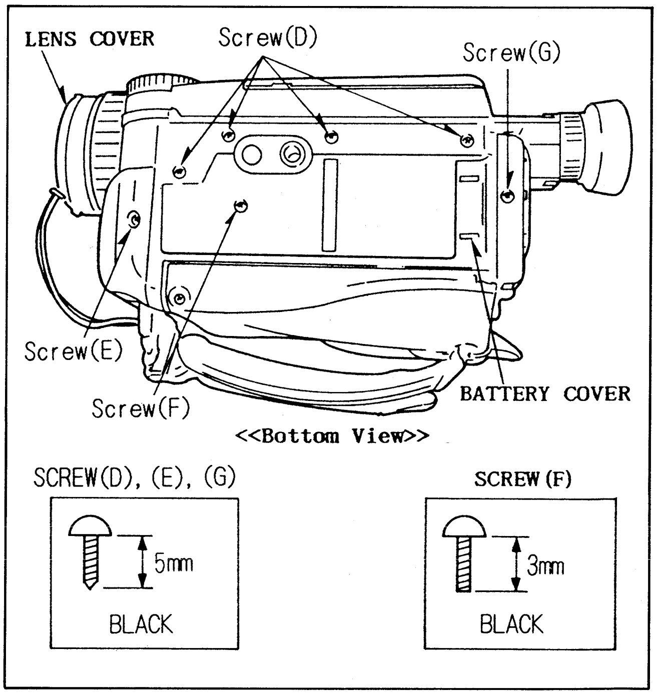

LENS COVER
Screw(D)
Screw(G)
Screw(E)
Screw(F)
BATTERY COVER
<<Bottom View>>
SCREW(D), (E), (G)
5mm
BLACK
SCREW (F)
3mm
BLACK

Fig. D3

(See Fig. D4)
(3). Remove ...... 3 Screws(H).

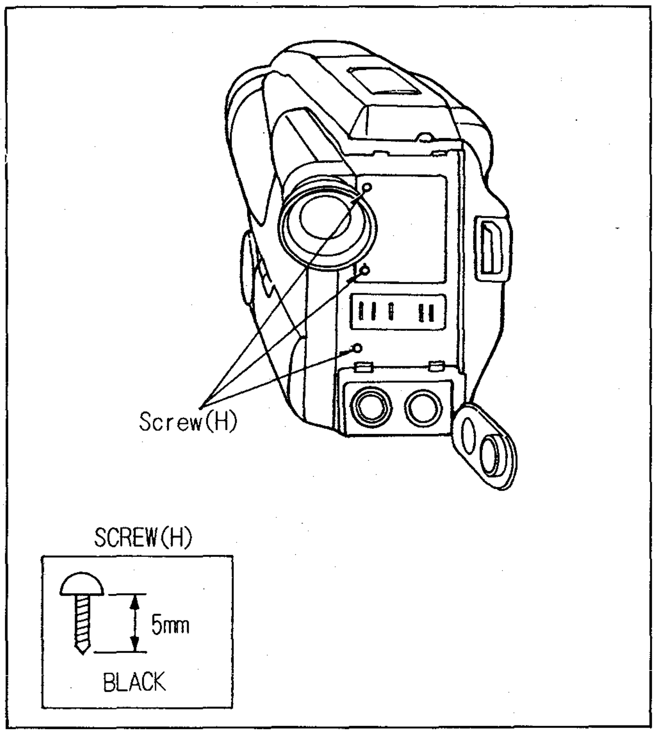

Screw(H)
SCREW(H)
5mm
BLACK

Fig. D4

(See Fig. D5)
(4). Remove ...... Screws(J).

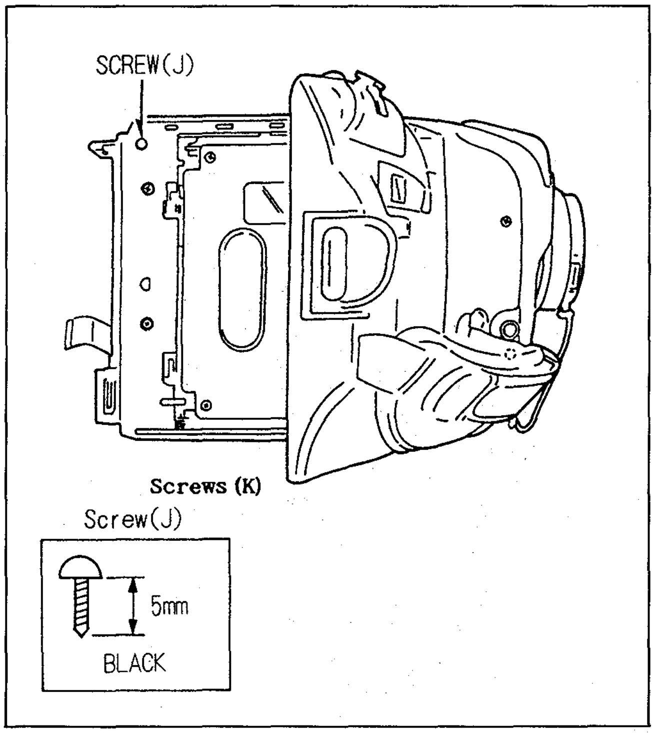

SCREW(J)
Screws (K)
Screw(J)
5mm
BLACK

Fig. D5

(See Fig. D6)
(5). Slightly slide the case(R).

Note: Be careful that you do not break the cables and connector(Connector(A), (B))
Cable for Connector (A) is flexible type.

(6). Disconnect ...... Connector(A), (B)
(7). Remove the side case (R)

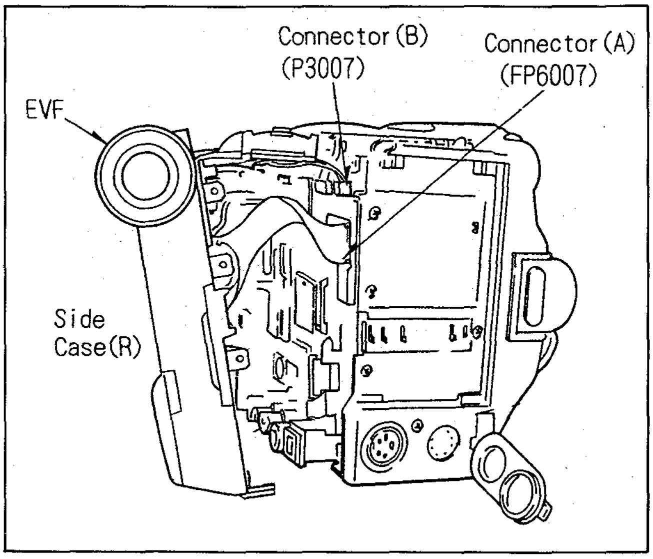

Connector(B)
(P3007)
Connector(A)
(FP6007)
EVF
Side
Case(R)

Fig. D6

2. Removal of Side Case (L).

(See Fig. D7)

(1). Remove ...... Screw(K), (L)
(2). Disconnect ...... Connector(K), (L)
(3). Remove ...... Jack Cover

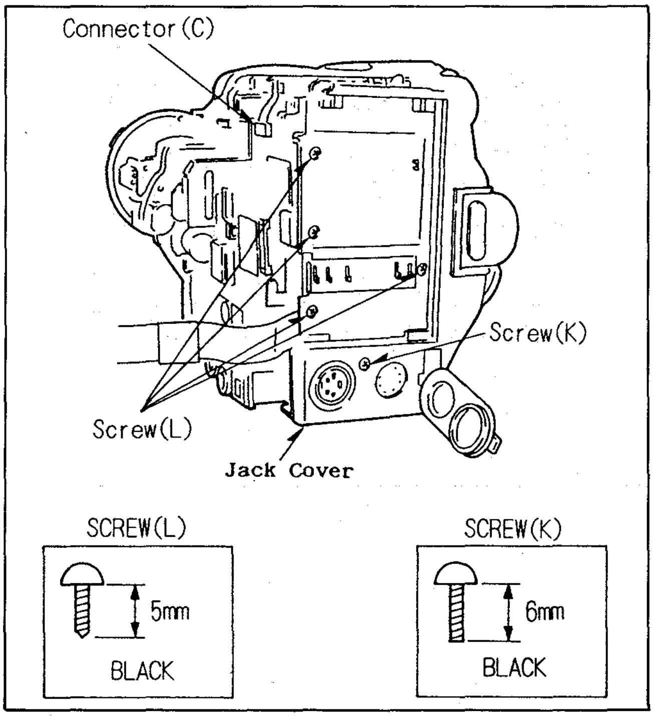

Connector(C)
Screw(K)
Screw(L)
Jack Cover
SCREW(L)
5mm
BLACK
SCREW(K)
6mm
BLACK

Fig. D7

(See Fig D8)

(4). Remove ...... Screw(M), (N)

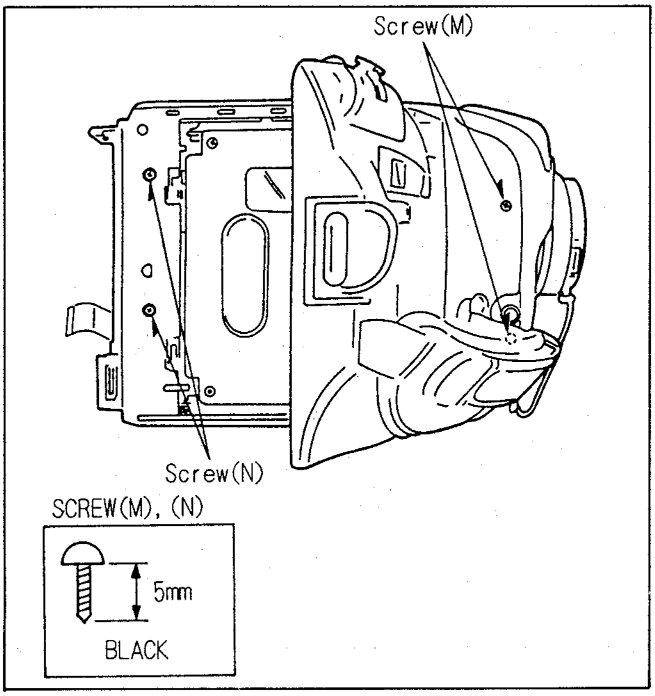

Screw(M)
Screw(N)
SCREW(M), (N)
5mm
BLACK

Fig. D8

(See Fig D9)

(5). Disconnect ...... Connector (D)
(6). Remove Side Case(L)

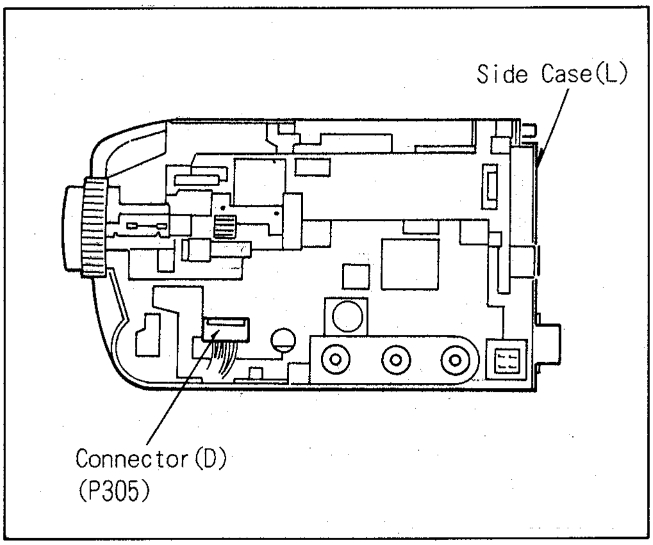

Side Case(L)
Connector(D)
(P305)

Fig D9

3. Removal of Front Case.

(See Fig D10)

(1). Slide ...... Front Case
(2). Disconnect ...... Connector (E), (F)

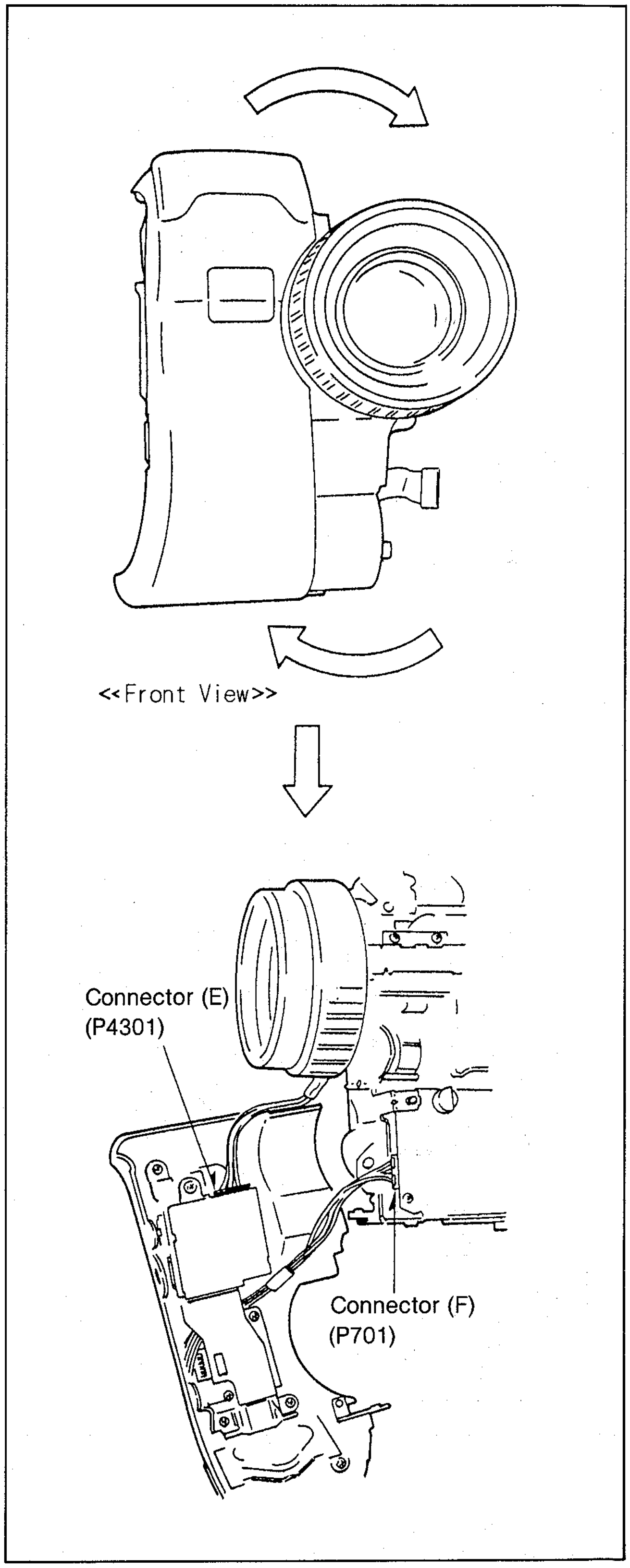

<<Front View>>
Connector (E)
(P4301)
Connector (F)
(P701)

Fig. D10

4. Removal of Camera Unit

(See Fig D11)

(1). Remove ...... 2 Screw(O).
(2). Disconnect ...... Connector (G), (H).

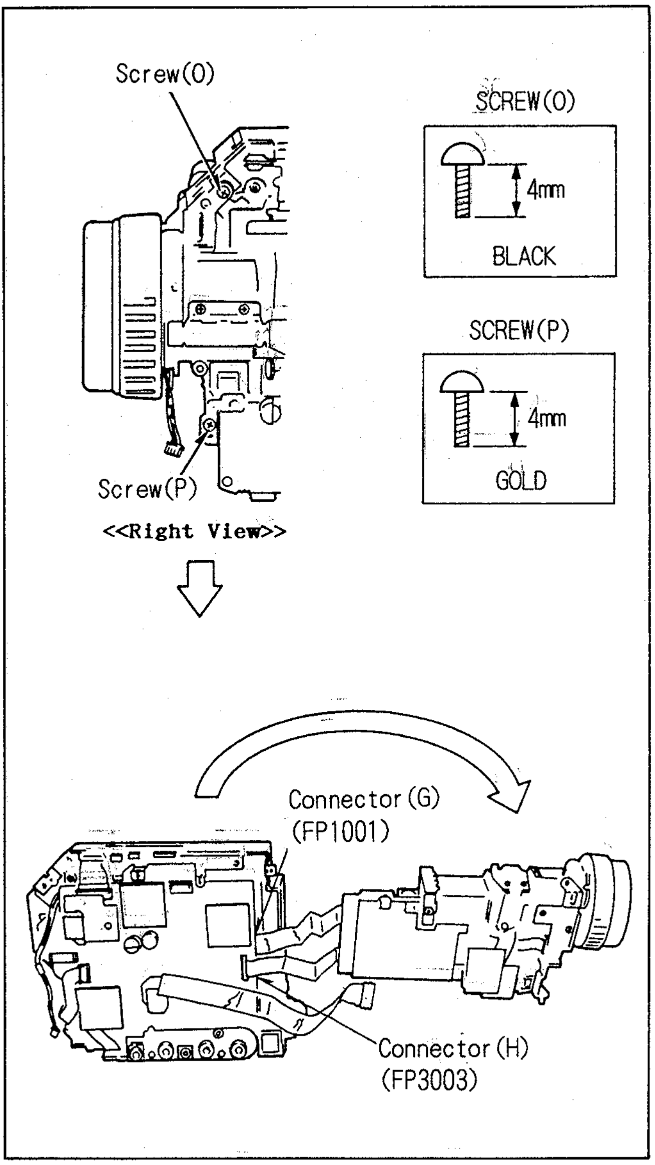

Screw(O)
SCREW(O)
4mm
BLACK
SCREW(P)
4mm
GOLD
Screw(P)
<<Right View>>
Connector (G)
(FP1001)
Connector (H)
(FP3003)

Fig. D11

5. Removal of Main C.B.A

(See Fig D12)

(1). Remove ...... 2 Screw(Q).
(2). Disconnect ...... Connector (I).
(3). Remove ...... AV-JACK.

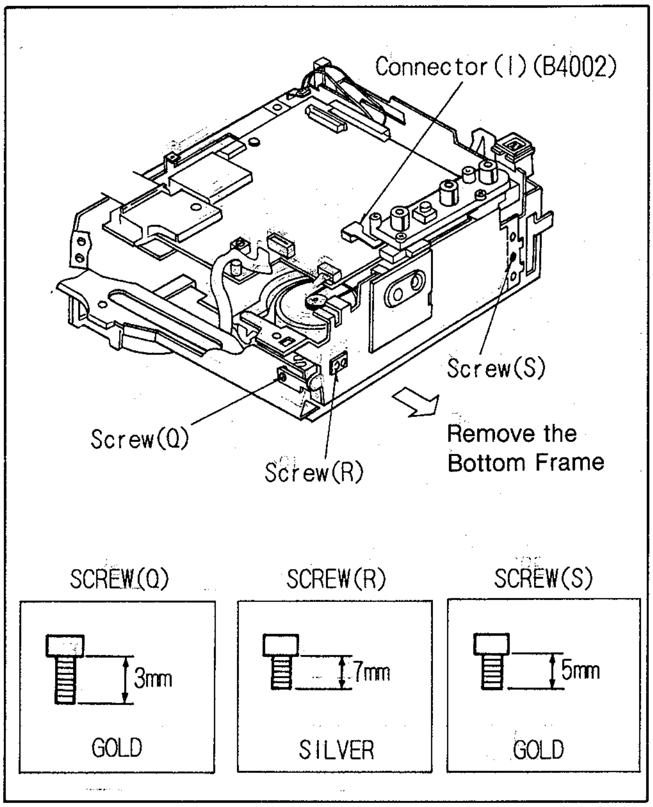

Connector (I) (B4002)
Screw(S)
Remove the
Bottom Frame
Screw(Q)
Screw(R)
SCREW(Q)
3mm
GOLD
SCREW(R)
7mm
SILVER
SCREW(S)
5mm
GOLD

Fig. D12

(See Fig D13)

(4). Disconnect ...... Connector (J), (K), (L), (M), (N) and (O)
(5). Remove ...... 2 Screw(T), (U), (V).

Note: Connector (O) is connected to Power C.B.A

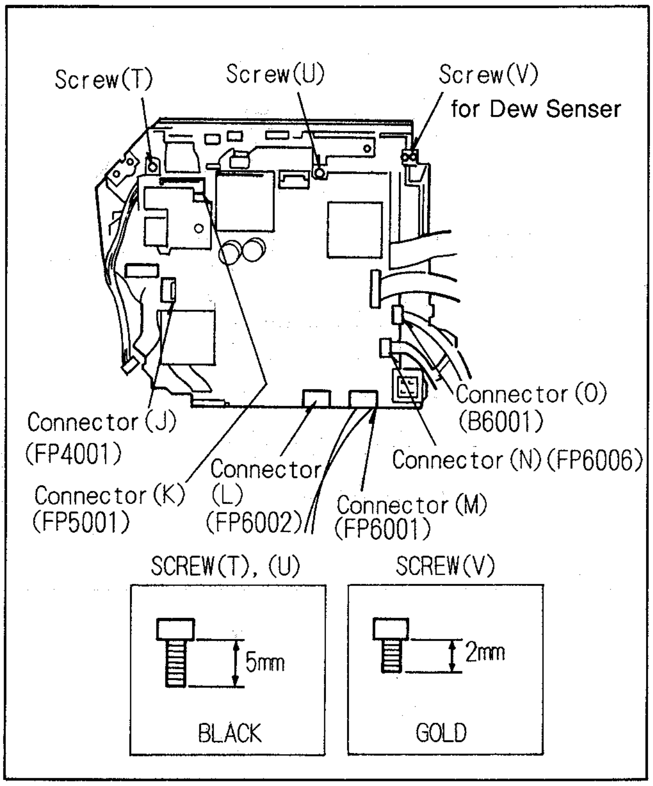

Screw(T)
Screw(U)
Screw(V)
for Dew Senser
Connector (O)
(B6001)
Connector (J)
(FP4001)
Connector (N) (FP6006)
Connector (K)
(FP5001)
Connector
(L)
(FP6002)
Connector (M)
(FP6001)
SCREW(T), (U)
5mm
BLACK
SCREW(V)
2mm
GOLD

Fig. D13

(See Fig D14)
(6). Lift up the Main C.B.A slightly.
(7). Disconnect ...... Connector (P).

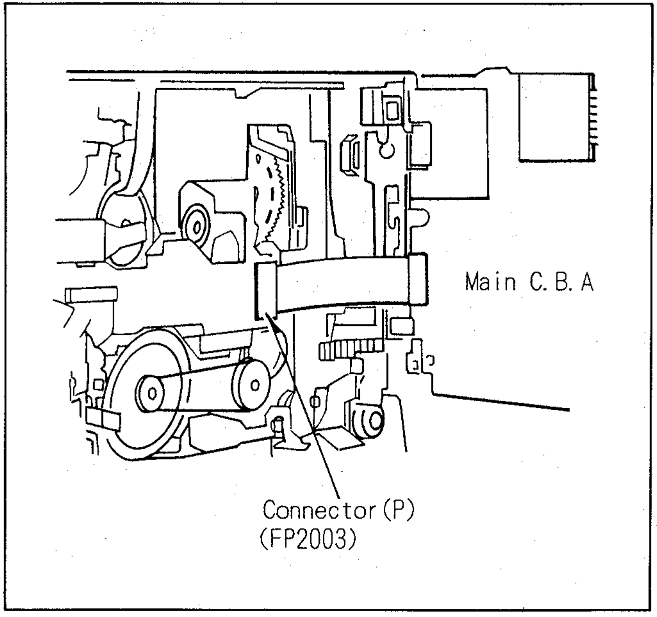

Main C.B.A
Connector (P)
(FP2003)

Fig. D14

6. Removal of Power C.B.A

(See Fig D15)

(1). Remove ...... 2 Screw(W).
(2). Slide the Power C.B.A.

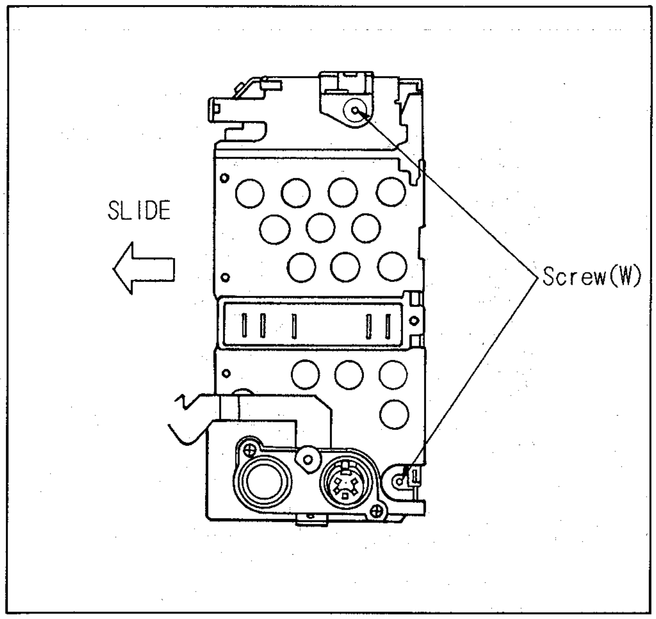

SLIDE
Screw(W)

Fig. D15

7. Removal of Drive C.B.A.

(See Fig D16)

(1). Remove ...... 2 Screw(X)
(2). Disconnect ...... Connector (Q), (R).

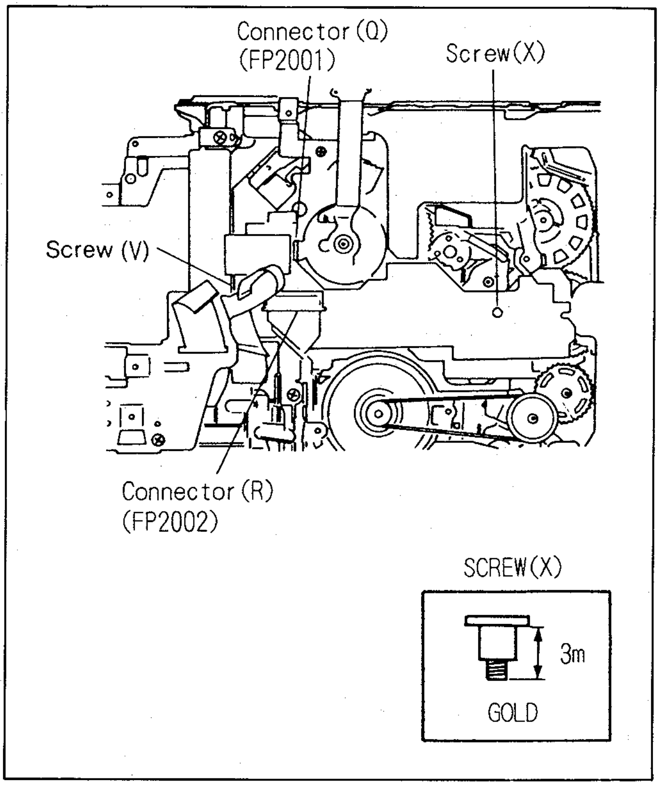

Connector (Q)
(FP2001)
Screw(X)
Screw (V)
Connector (R)
(FP2002)
SCREW(X)
3m
GOLD

Fig. D16

2-2. DISASSEMBLY PROCEDURE OF LENS UNIT

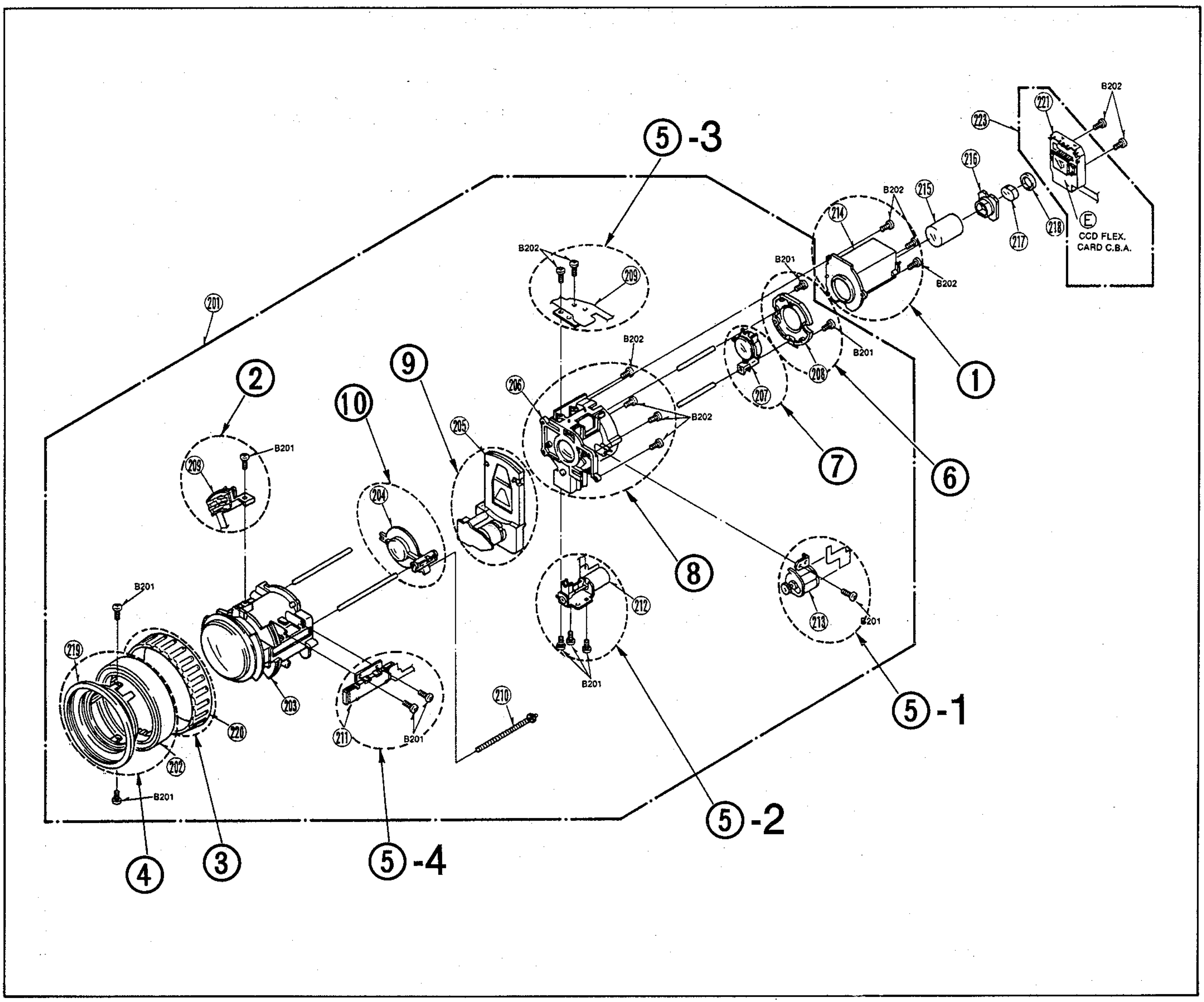
The follwing flow-chart describes order or steps for removing the Lens Unit and certain printed circuit boards in order to make access to the item needing service.

To make reassemble the unit follow the steps in reverse order.

1. Master Flange	(Remove...3 Screws)	Ref No:214
⇩		
2. Phto Coupler On Lens Flex	(Remove ...1 Screw)	Ref No:209
⇩		
3. Focus Ring Rubber		Ref No:220
⇩		
4. Focus Ring & Focus Ring Base	(Remove...2 Screws & Locking Tabs)	Ref No:202 & 219
⇩		
5. Lens Flex Card C.B.A	(Remove the following parts)	Ref No:209
5-1:Zoom Motor Unit	(Remove ...1 Screw)	Ref No:213
5-2:Focus Motor Unit	(Remove ...3 Screws)	Ref No:212
5-3:Focus ENC.	(Remove ...2 Screws)	Ref No:209
5-4:Zoom ENC.	(Remove ...2 Screws)	Ref No:211
⇩		
6. Pole Guide	(Remove ...2 Screws)	Ref No:208
⇩		
7. 4TH Moving Frame Unit		Ref No:207
⇩		
8. Master Flange	(Remove ...4 Screws)	Ref No:206
⇩		
9. Iris Unit		Ref No:205
⇩		
10. 2ND Moving Frame Unit		Ref No:204

Note: Each Ref-number are equivalant to number of Fig L2 and Parts List.

Fig. L1


⑤-3
B202
209
201
B202
B201
B202
214
215
216
221
223
217
218
Ⓔ
CCD FLEX.
CARD C.B.A.
B202
B201
B202
206
208
B201
207
①
②
B201
209
⑩
⑨
205
204
B202
⑦
⑥
⑧
212
213
B201
B201
219
220
202
203
211
B201
210
B201
B201
⑤-1
⑤-2
④
③
⑤-4

2-3. DISASSEMBLY PROCEDURES OF MECHANISM

1. Removal of Cassette Holder Unit.

(1) Unsolder following flexible connectors on the bottom side.

(1) FLEXIBLE CONNECTOR TO SUPPLY PHOTO TR.
(2) FLEXIBLE CONNECTOR TO TAKE UP PHOTO TR.
(3) FLEXIBLE CONNECTOR TO LOADING MOTOR.
(4) FLEXIBLE CONNECTOR TO SENSOR LED.

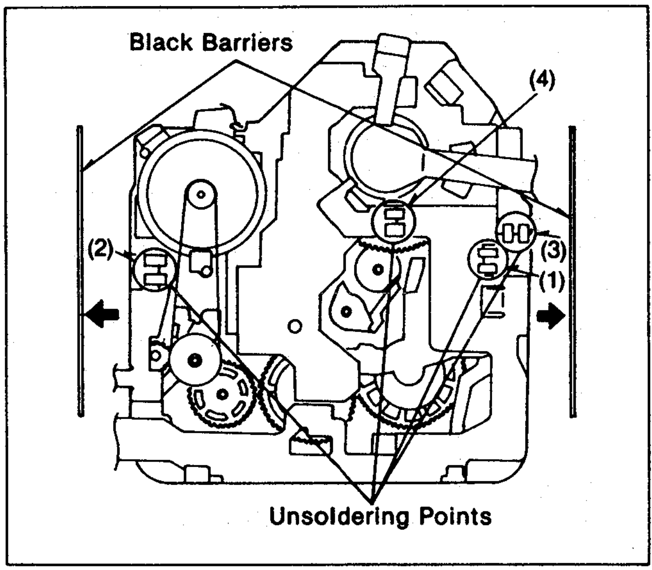

Black Barriers
(4)
(2)
(3)
(1)
Unsoldering Points

Fig. M1

(2) Remove 4 red screws indicated below.

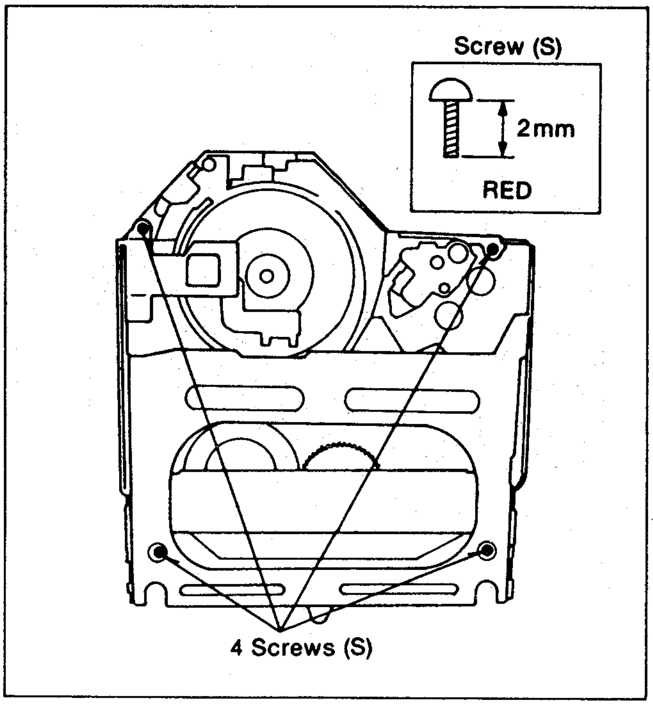

Screw (S)
2mm
RED
4 Screws (S)

Fig. M2

(3) Release Eject Lock Lever and take out Cassette Holder Unit.

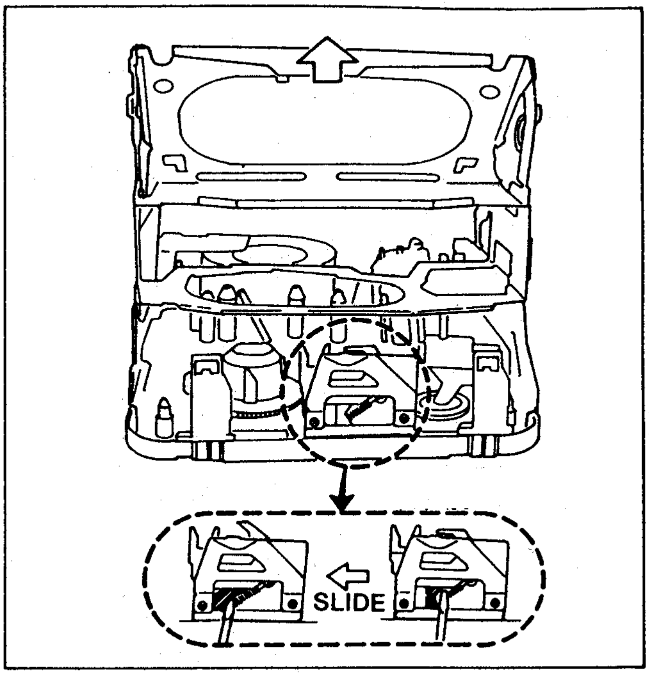


Fig. M3

2. REMOVAL OF DD CYLINDER UNIT.

Note: *
Upper Cylinder Unit is not replaceable on it's own. The DD Cylinder is only available as a unit.

(1) Remove RT (Rotary Transformer) Connector using a screw driver.
(2) Remove 3 screws to take out DD Cylinder Unit.

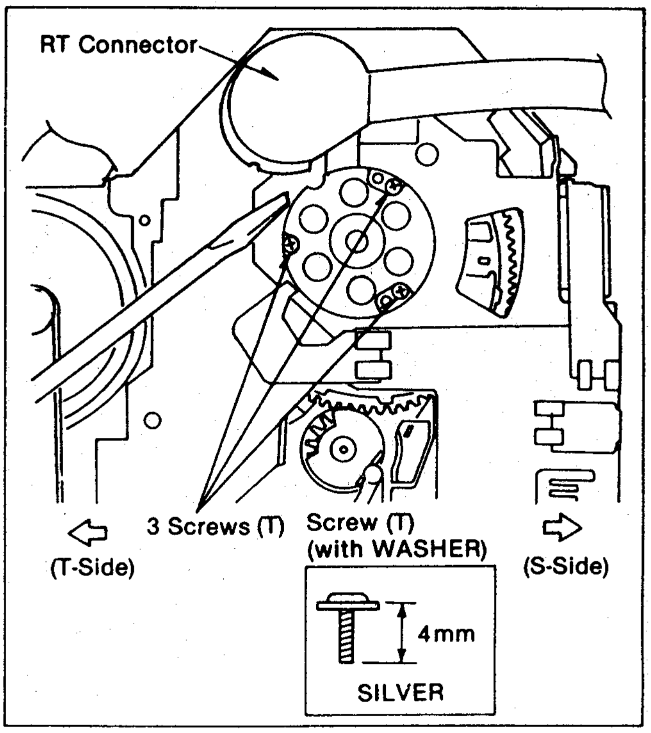

RT Connector
3 Screws (T)
Screw (T)
(with WASHER)
(T-Side)
(S-Side)
4mm
SILVER

Fig. M4

3. REMOVAL OF S–RAIL UNIT, LOADING MOTOR UNIT & TENSION REGULATOR UNIT.

(1) Move tape loading Posts(S1, T1 and T2) half way in the tape loading direction by applying 1.5DC to Loading Motor.

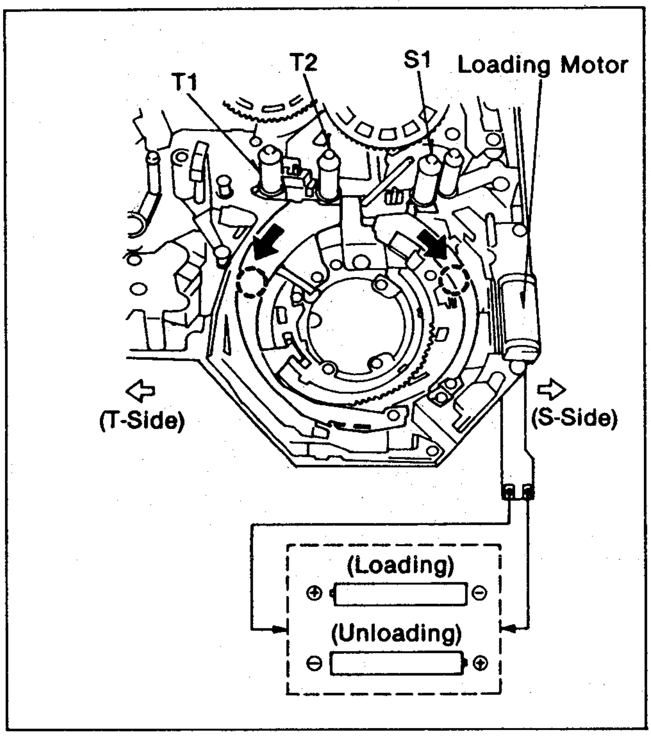

T2
S1
T1
Loading Motor
(T-Side)
(S-Side)
(Loading)
⊕
⊖
(Unloading)
⊖
⊕

Fig. M5

(2) Remove 2 screws and take out S–Rail Unit.

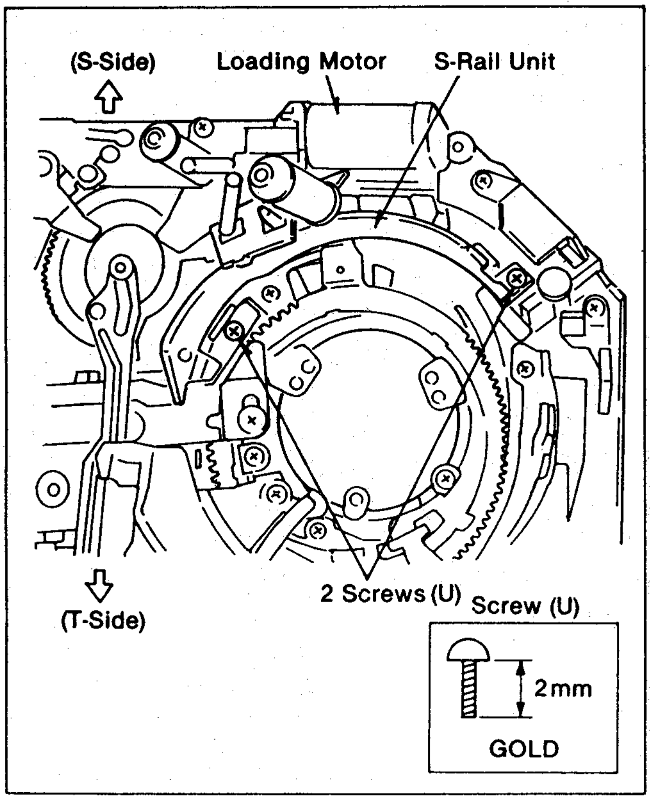

(S-Side)
Loading Motor
S-Rail Unit
(T-Side)
2 Screws (U)
Screw (U)
2mm
GOLD

Fig. M6

(3) Remove 2 screws (Slightly move Loading Posts in the unloading direction.) and take out Loading Motor Unit.

(4) Unhook the spring (* Remember the originai hooking position for reinstallation later), remove a washer and take out Tension Regulator Unit.
Don't lose a spacer underneath.

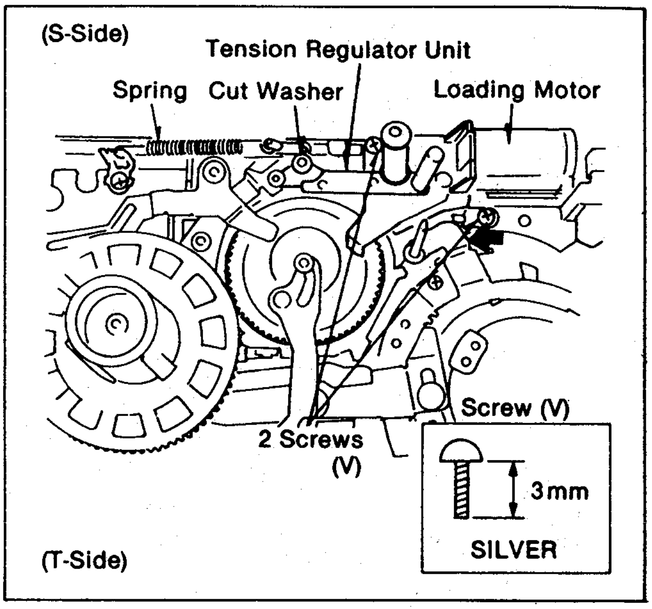

(S-Side)
Tension Regulator Unit
Spring
Cut Washer
Loading Motor
Screw (V)
2 Screws (V)
3mm
SILVER
(T-Side)

Fig. M7

4. REMOVAL OF SUPPLY REEL TABLE, EJECT LEVER UNIT AND PAD ARM.

(1) Remove a washer and take out Supply Reel Table. Don't lose a spacer underneath.

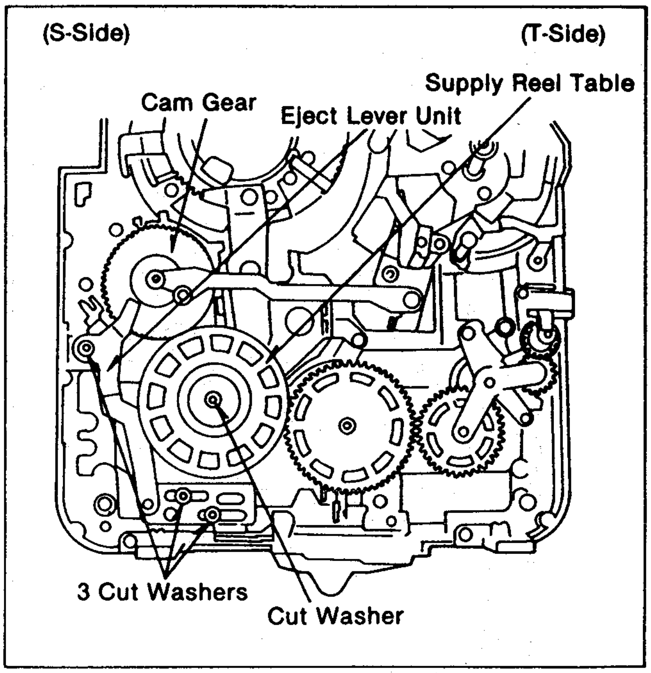

(S-Side)
(T-Side)
Supply Reel Table
Cam Gear
Eject Lever Unit
3 Cut Washers
Cut Washer

Fig. M8

(2) Remove 3 washers, 2 screws on Eject Lock Base to make clearance (* Eject Lock Base is soldered on the flexible P.C. Board.) to take out Eject Lock Lever.

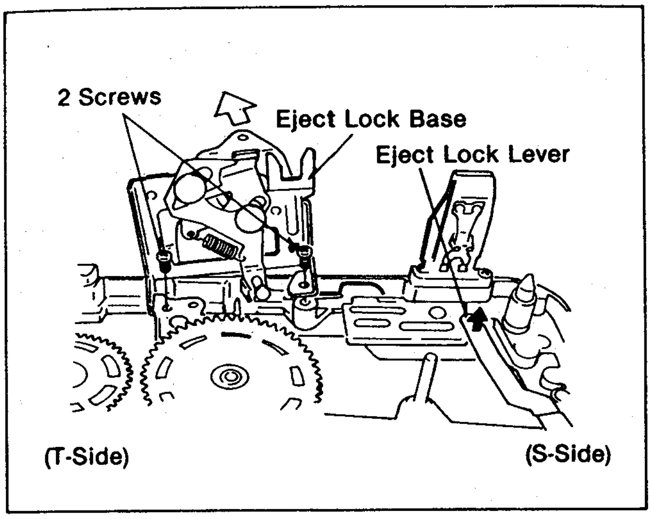

2 Screws
Eject Lock Base
Eject Lock Lever
(T-Side)
(S-Side)

Fig. M9

(3) Remove 2 washers, pull Pinch Drive Arm to the left (S–side) and take it out.

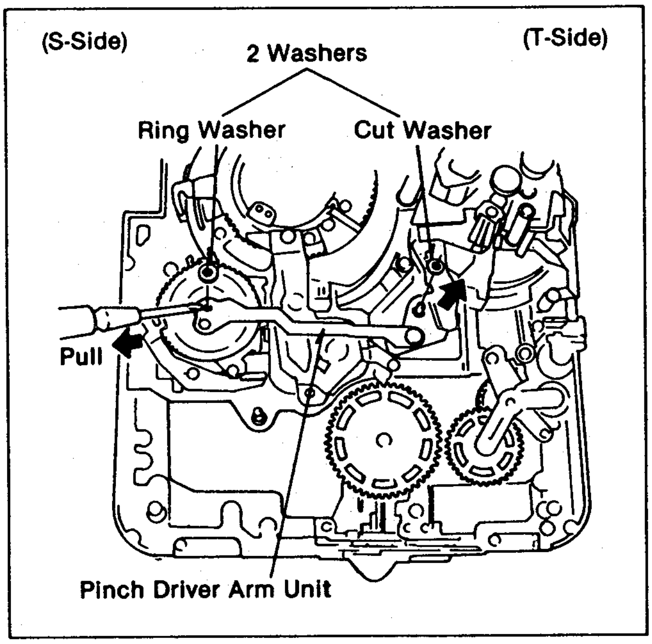

(S-Side)
2 Washers
(T-Side)
Ring Washer
Cut Washer
Pull
Pinch Driver Arm Unit

Fig. M10

(4) Remove a washer and take out Pad Arm.

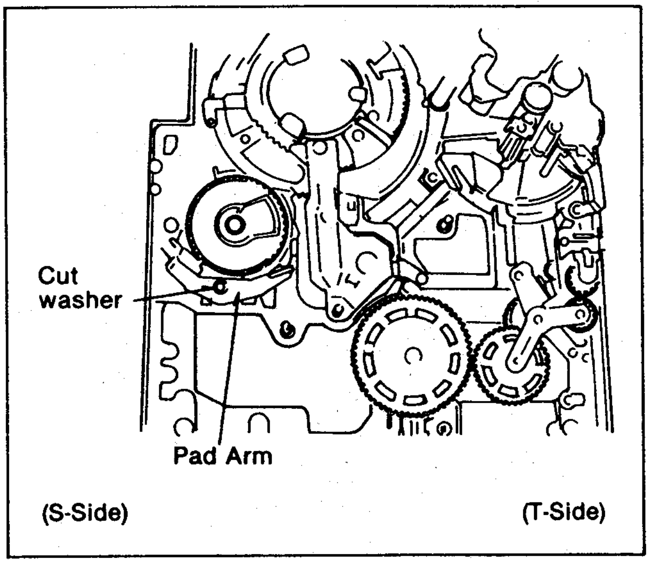

Cut washer
Pad Arm
(S-Side)
(T-Side)

Fig. M11

5. REMOVAL OF T–RAIL UNIT, SWING ARM UNIT, LOADING UNIT AND MODE SW UNIT

(1) Remove 2 screws and take out T–Rail Unit. (* Flexible Connector of Sensor LED has to be unsoldered on the bottom side.)

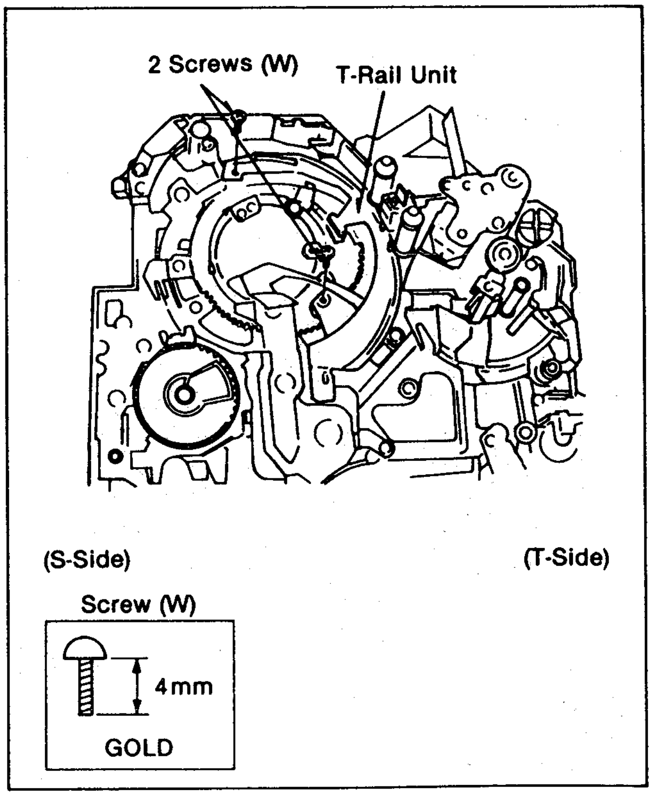

2 Screws (W)
T-Rail Unit
(S-Side)
(T-Side)
Screw (W)
4mm
GOLD

Fig. M12

Caution:
Do not touch inside cam Gear and keep the cam Gear away from grease and dusts.

(2) Remove 2 screws, take out Holder Angle and Swing Arm Unit.

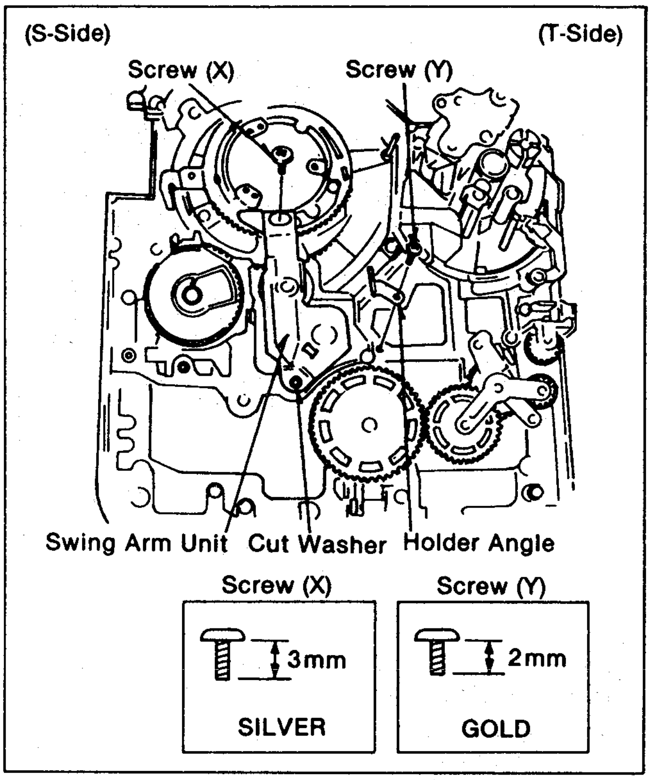

(S-Side)
(T-Side)
Screw (X)
Screw (Y)
Swing Arm Unit
Cut Washer
Holder Angle
Screw (X)
3mm
SILVER
Screw (Y)
2mm
GOLD

Fig. M13

(3) Remove 5 screws.

(4) Loosen Screw (a) to make a clearance and take out Loading Unit.

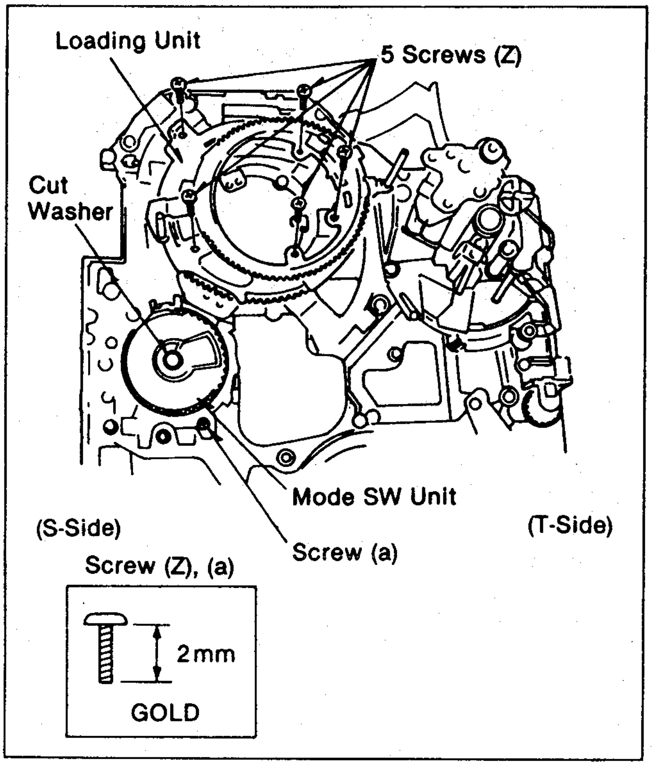

Loading Unit
5 Screws (Z)
Cut Washer
Mode SW Unit
(S-Side)
(T-Side)
Screw (a)
Screw (Z), (a)
2mm
GOLD

Fig. M14

(5) Remove screw (a) and cut washer to take out mode SW unit. (※Mode SW Base is soldered on the flexible P.C. Board).

2-4. ASSEMBLY AND PHASE ADJUSTMENT PROCEDURES OF MECHANISM

1. ASSEMBLY AND PHASE ADJUSTMENT OF LOADING UNIT.

   (1) Install Loading Unit and tighten 5 screws.
   (2) Adjust mechanical phase so that phase marks (See-through holes) meet on both supply and take up sides as shown below.

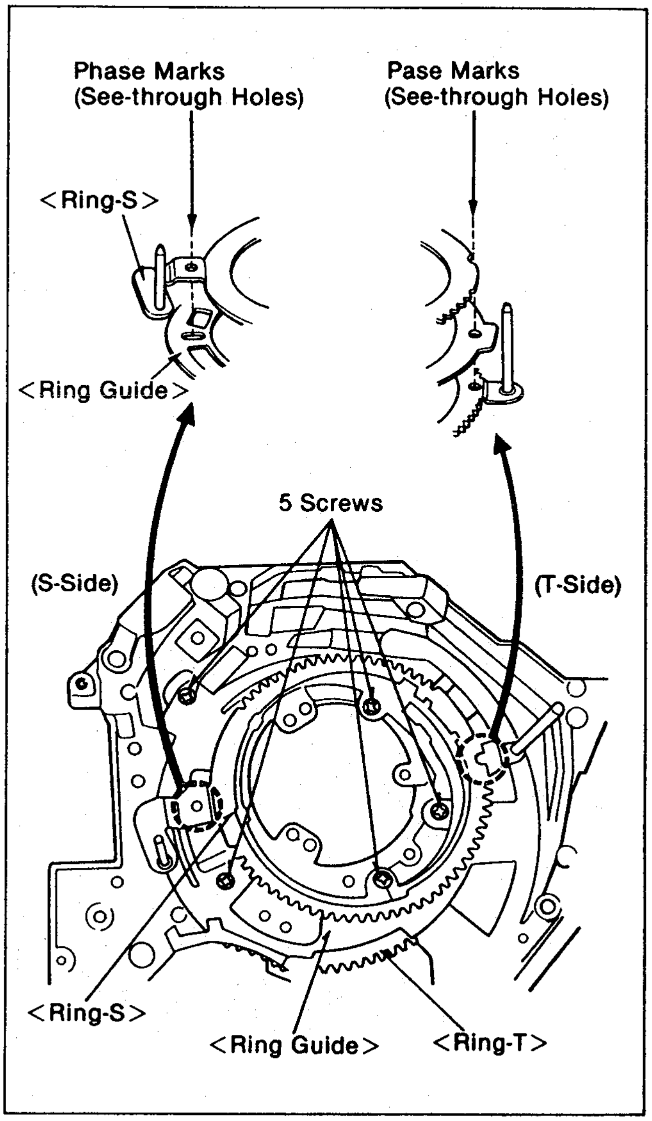

Phase Marks (See-through Holes)
Pase Marks (See-through Holes)
<Ring-S>
<Ring Guide>
5 Screws
(S-Side)
(T-Side)
<Ring-S>
<Ring Guide>
<Ring-T>

Fig. M15

2. ASSEMBLY AND PHASE ADJUSTMENT OF CAM GEAR.

   (1) Install Cam Gear so that uneven cog portion meets the phase mark on the chassis and put the washer.

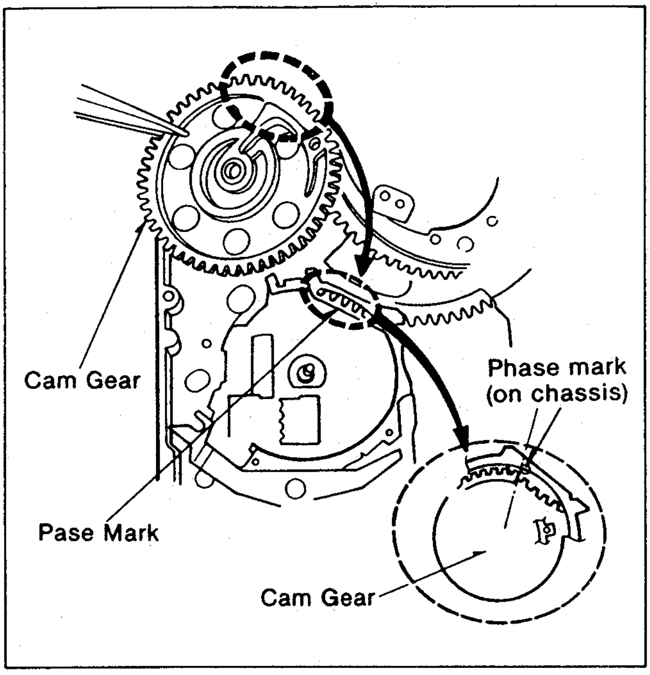

Cam Gear
Phase mark
(on chassis)
Pase Mark
Cam Gear

Fig. M16

3. ASSEMBLY OF PENDULUM ARM UNIT

(1) Install Swing Arm Unit and tighten 2 screws with the holder angle.
(2) Confirm that the phase mark on Loading Ring−T can be seen through the square cutout of Swing Arm Unit. The phase mark of Swing Arm Unit (V− cutout) aligns with the phase mark on Loading Ring−S Unit on the bottom side. There phase marks should be in the correct positions, if the previous phase adjustments have been done correctly.

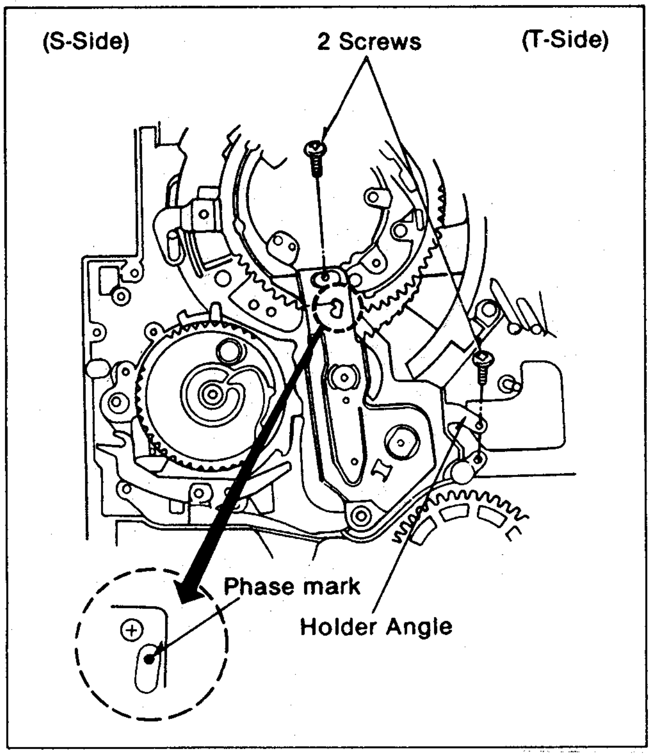

(S-Side)
2 Screws
(T-Side)
Phase mark
Holder Angle

Fig. M17

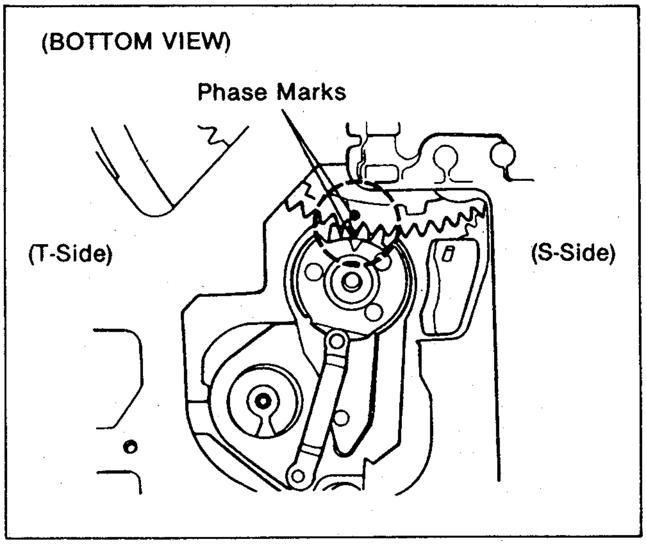

(BOTTOM VIEW)
Phase Marks
(T-Side)
(S-Side)

Fig. M18

4. ASSEMBLY OF LOADING UNIT PINCH DRIVE ARM UNIT AND CONFIRMATION OF MECHANICAL MOVEMENT

(1) Install Loading Motor Unit and tighten one screw. (one more screw has to be tightened after installing Pinch Drive Arm Unit)

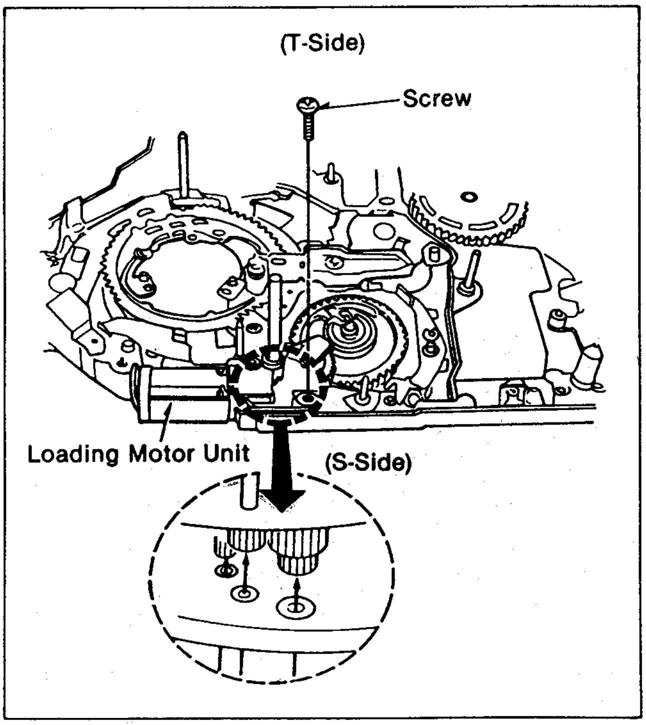

(T-Side)
Screw
Loading Motor Unit
(S-Side)

Fig. M19

(2) Install Pinch Drive Arm Unit and put on washer (A).

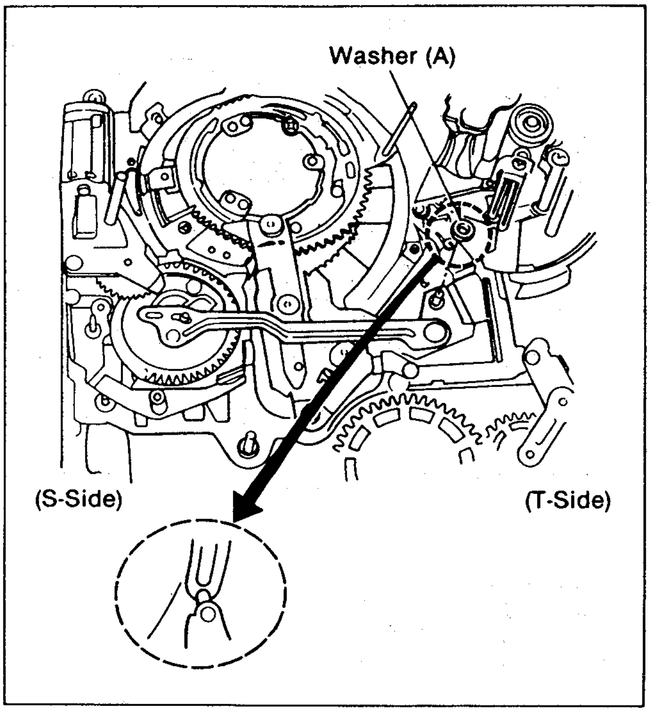

Washer (A)
(S-Side)
(T-Side)

Fig. M20

(3) Move Pinch Roller to the unloading position by finger and put on washer (B).

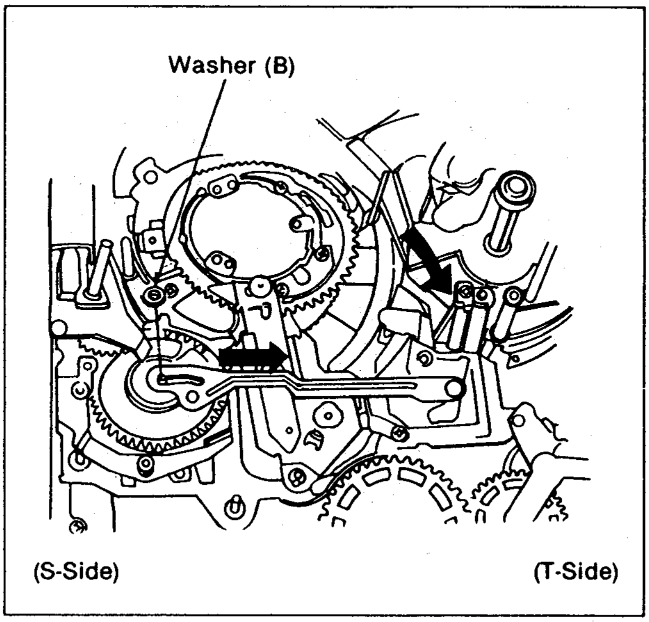

Washer (B)
(S-Side)
(T-Side)

Fig. M21

(4) Slightly move Loading Ring-S in the unloading direction by applying 1.5VDC to Loading Motor and tighten the screw.

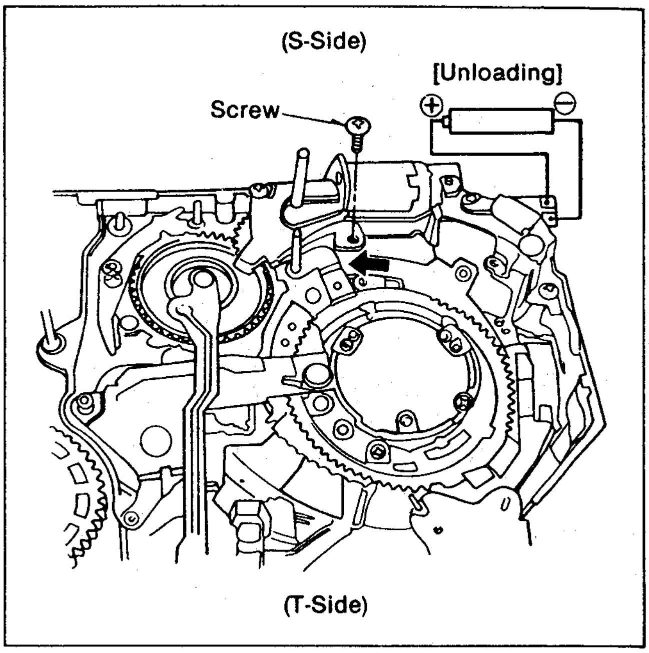

(S-Side)
[Unloading]
Screw
⊕
⊖
(T-Side)

Fig. M22

(5) Confirmation of Mechanical Movement and phase. In this condition, check that the mechanism smoothly moves in both loading and unloading directions by changing the polarity of the battery.
After that, move the mechanism back to the phase adjustment position and confirm all phase marks come to the correct position.

5. ASSEMBLY OF S-RAIL UNIT AND T-RAIL UNIT

(1) Install S-Rail Unit passing Link Post of Ring-S through the linking hole of the S-Rail Unit, and tighten 2 screws.

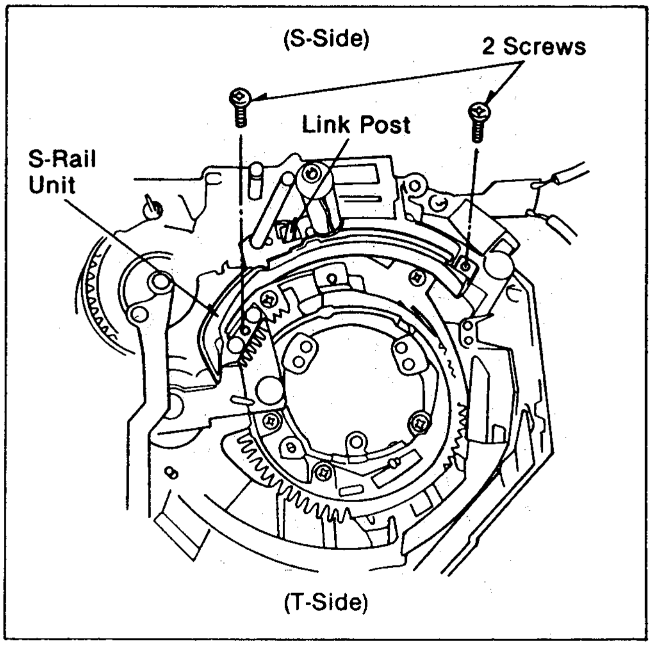

(S-Side)
2 Screws
Link Post
S-Rail Unit
(T-Side)

Fig. M23

(2) Install T–Rail Unit the same way and tighten 2 screws.
(3) Solder the flexible connector of Sensor LED on the bottom side.

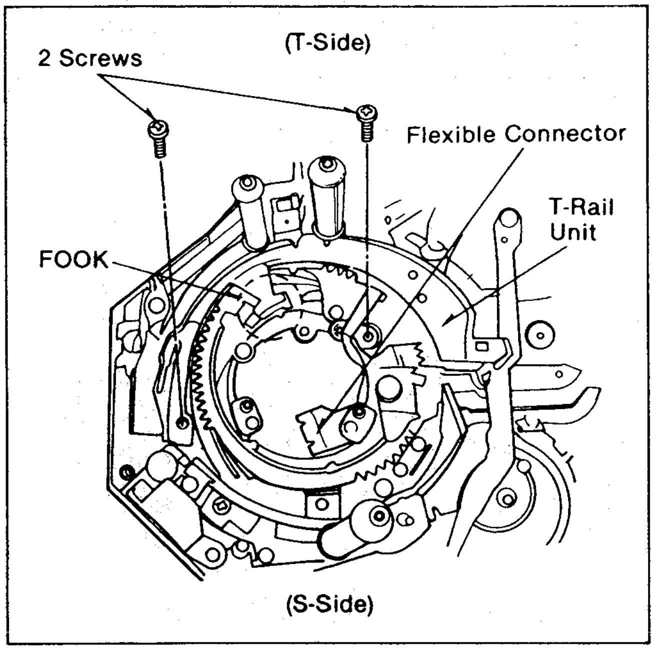

2 Screws
(T-Side)
Flexible Connector
T-Rail Unit
FOOK
(S-Side)

Fig. M24

6. ASSEMBLY OF EJECT LEVER UNIT

(1) Install Eject Lever Unit and link the arm with Eject Lock Base.
(2) Fix Eject Lock Base with 2 screws and Eject Lever Unit with 3 washers.

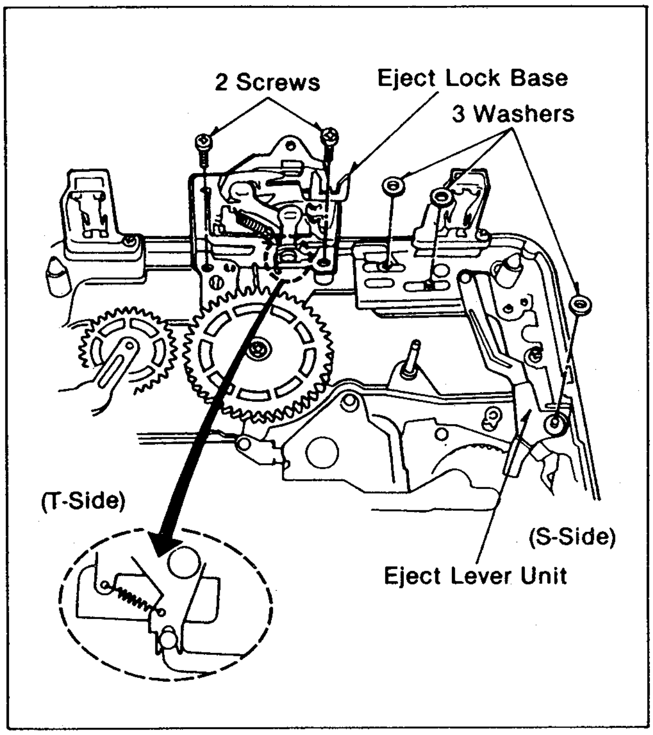

2 Screws
Eject Lock Base
3 Washers
(T-Side)
(S-Side)
Eject Lever Unit

Fig. M25

7. ASSEMBLY OF TENSION REGULATOR UNIT.

(1) Install Tension Regulator Unit so that the guide arm fits in outer inside of Cam Gear
(2) Put on washer and hook Tension Spring in the original position.

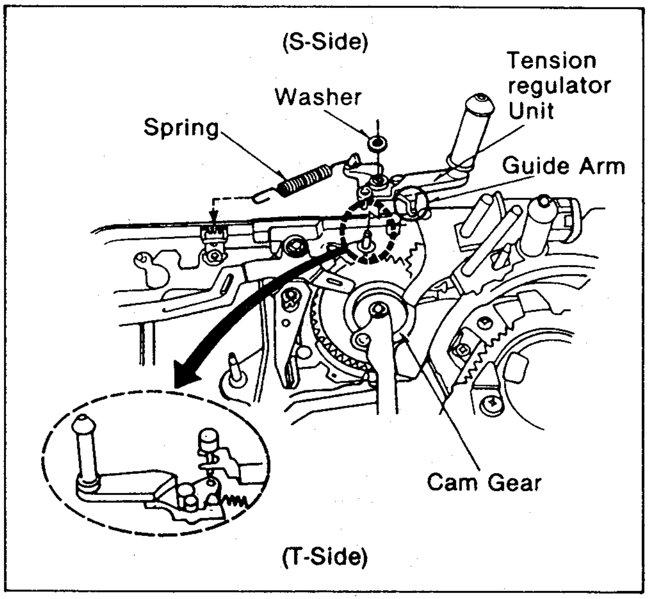

(S-Side)
Tension regulator Unit
Washer
Spring
Guide Arm
Cam Gear
(T-Side)

Fig. M26

8. ASSEMBLY OF SUPPLY REEL TABLE

(1) Install Supply Reel Table and put on the washer.

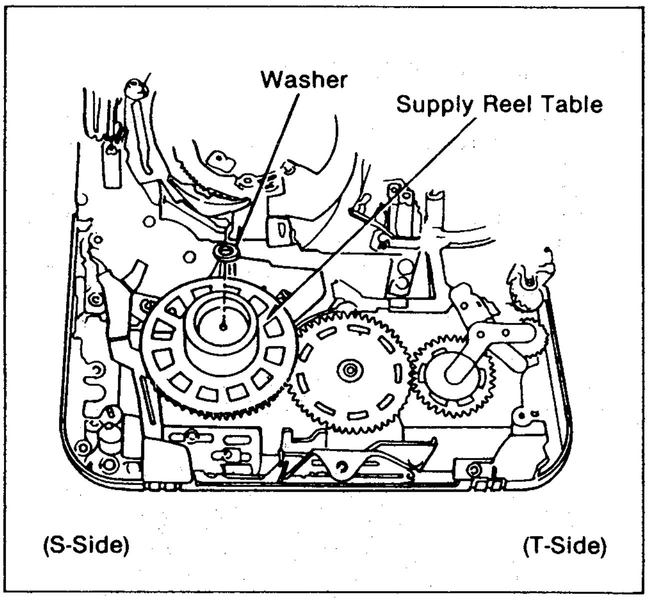

Washer
Supply Reel Table
(S-Side)
(T-Side)

Fig. M27

9. ASSEMBLY OF DD CYLINDER UNIT

(1) Install DD Cylinder unit so that the fixating pins fit into the fixing holes, and tighten 3 screws from the bottom side.

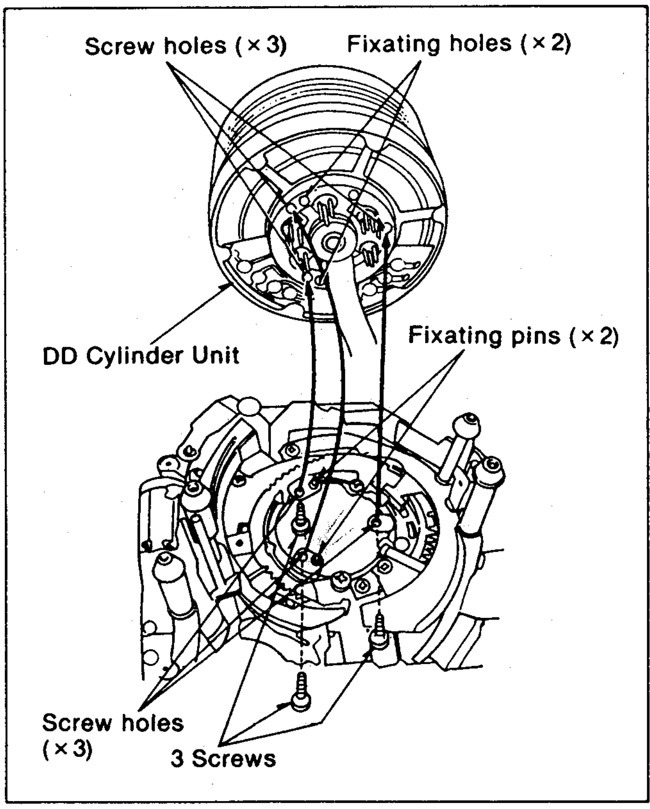

Screw holes (×3)
Fixating holes (×2)
DD Cylinder Unit
Fixating pins (×2)
Screw holes
(×3)
3 Screws

Fig. M28

10. ASSEMBLY OF RT CONNECTOR

(1) Hold RT Connector aligning the phase mark of RT Connector (as indicated) to the phase mark on the chassis.
(2) Carefully Install the RT Connector passing lead pins of DD Cylinder Unit through each corresponding hole of the RT Connector.

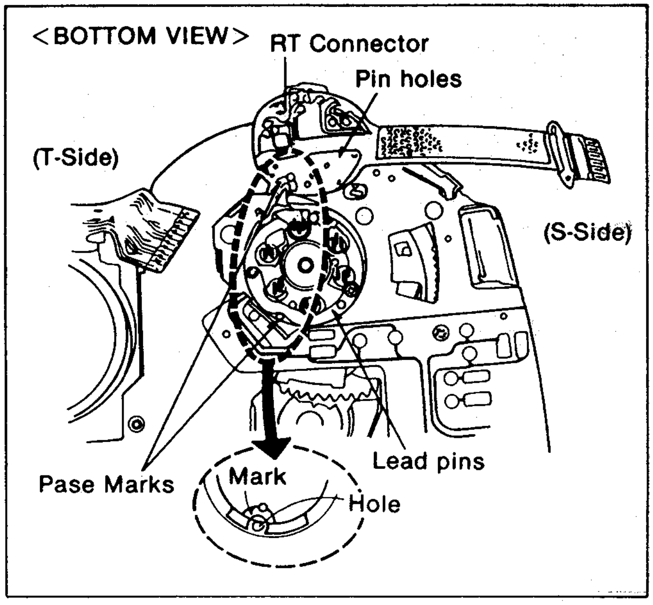

<BOTTOM VIEW>
RT Connector
Pin holes
(T-Side)
(S-Side)
Lead pins
Pase Marks
Mark
Hole

Fig. M29

11. ASSEMBLY OF CASSETTE HOLDER UNIT.

(1) Install Cassette Holder Unit and tighten 4 red screws.
(2) Solder flexible connectors of Supply Photo Sensor, Take up Photo Sensor and Loading Motor Unit on the bottom side.

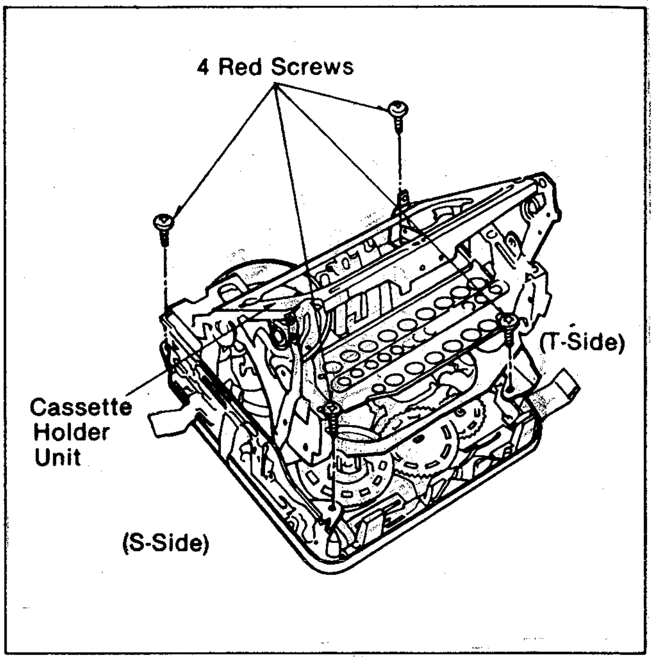

4 Red Screws
(T-Side)
Cassette
Holder
Unit
(S-Side)

Fig. M30

2-5. INTERCHANGEABILITY ADJUSTMENT

1. BACK TENSION ADJUSTMENT

* Equipment Required
Tension Meter
VHS-C Cassette Tape
Specification 18+3/−1.5g(16.5g~21g)

(1) Play back (remove the cassette tape cover) tape.
(2) Set Tension Meter at the measuring point and read the value.
(3) If the value is out of specification, change the hooking position of Tension Spring.
(4) Install Cassette Holder Unit.

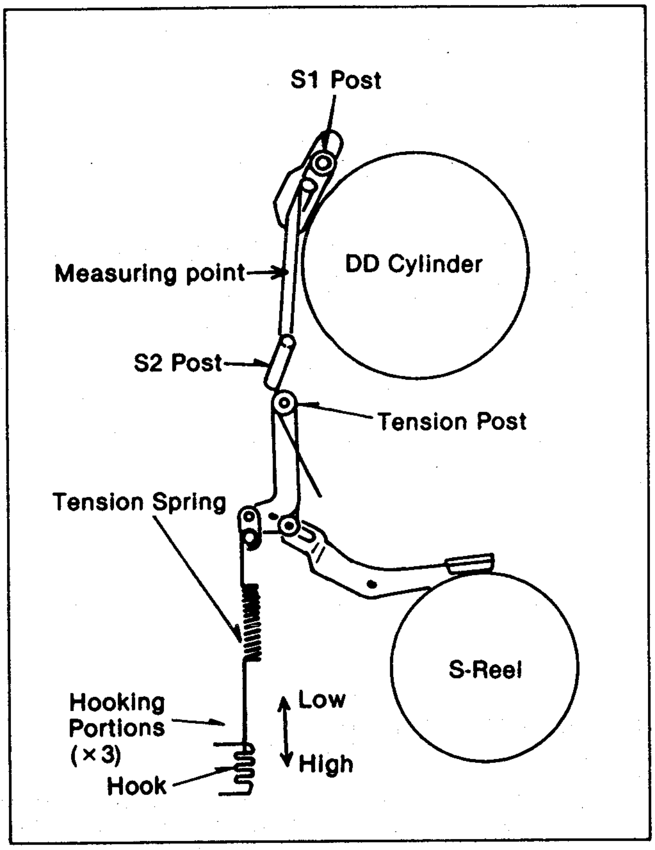

S1 Post
Measuring point
DD Cylinder
S2 Post
Tension Post
Tension Spring
S-Reel
Hooking Portions (×3)
Low
High
Hook

Fig. M31

2. HEIGHT ADJUSTMENT OF TAPE GUIDE POSTS AND A/C HEAD (PRELIMINARY ADJUSTMENT)

Confirmation of Tape Travel
(1) Playback a cassette tape (remove the cassette tape cover) and check that the tape travels without curling at upper and lower guides on posts S1, T1, T2 and T3.

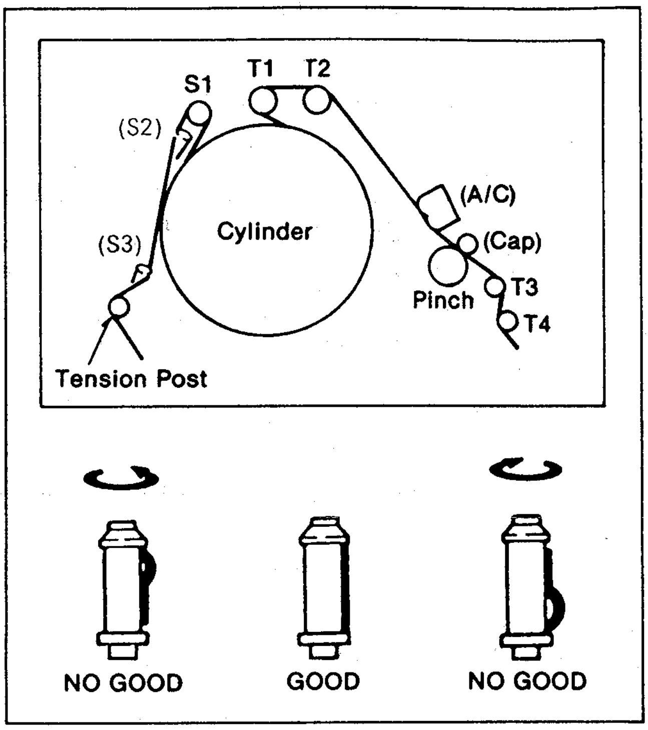

S1
T1
T2
(S2)
(A/C)
Cylinder
(Cap)
(S3)
Pinch
T3
T4
Tension Post
NO GOOD
GOOD
NO GOOD

Fig. M32

(2) If curling is apparent, adjust the height of posts by turning the top of post with a Hex Wrench.
(3) Looking at the lower edge of the Control Head with the tape in motion, ensure that lower edge of Control Head. If it doesn't turn the A/C Head height Adjustment Nut slightly in the direction necessary to correct it.

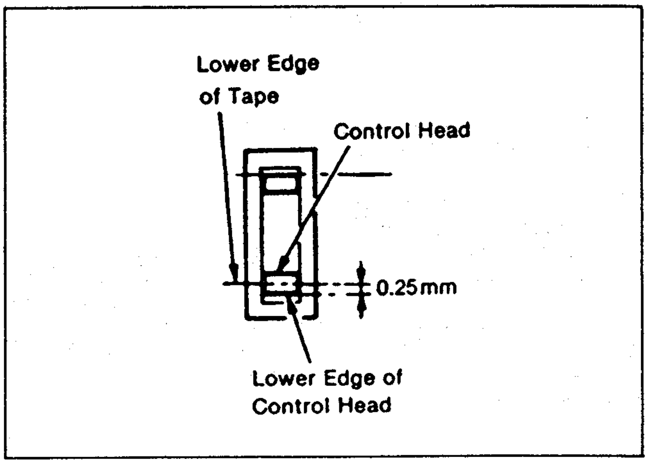

Lower Edge of Tape
Control Head
0.25mm
Lower Edge of Control Head

Fig. M33

3. TAPE INTERCHANEABILITY ADJUSTMENT

NOTE:
To perform these adjustments, make sure that the tracking control is set in the fixed position by Pressing both tracking Up/Down switches at the same time.

* Equipment Required
Dual Trace Oscilloscope
Alignment tape (VFM8180HUPF)

[AZIMUTH ADJUSTMENT OF A/C HEAD]

(1) Connect the oscilloscope to Audio Line Output.
(2) Play back the Monoscope portion (6KHZ,MONO) of the Alignment tape.
(3) Adjust the Azimuth Adjustment screw on the A/C Head Unit so that output level is at a maximum.

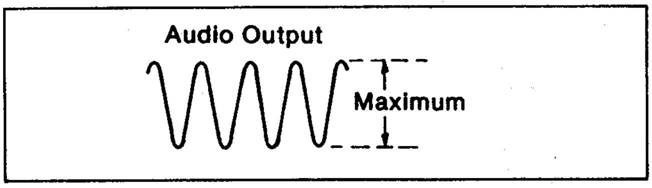

Audio Output
Maximum

Fig. M34

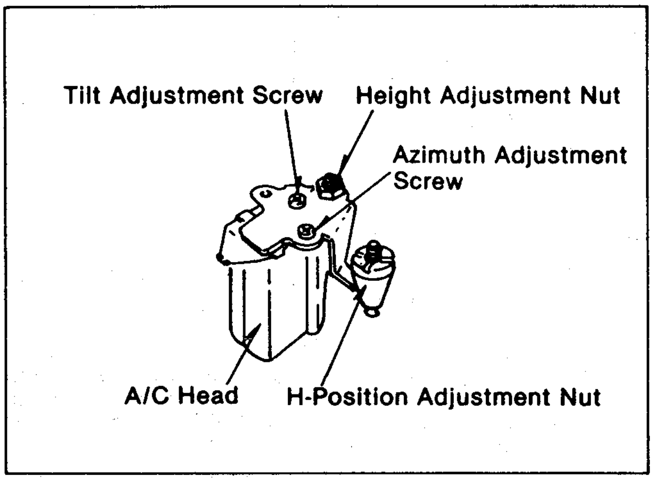

Tilt Adjustment Screw
Height Adjustment Nut
Azimuth Adjustment Screw
A/C Head
H-Position Adjustment Nut

Fig. M35

[CONFIRMATION/ADJUSTMENT OF ENVELOPE]

(1) Connect the oscilloscope to CL3004. (refer to Fig. M40)
(2) Play back the Monoscope portion of the Alignment Tape and adjust the height of S1 and T1 posts watching the scope display so that the RF envelope becomes as flat as possible.
(3) When the RF envelope has a Gap at the beginning of the track, adjust height of S1 post.

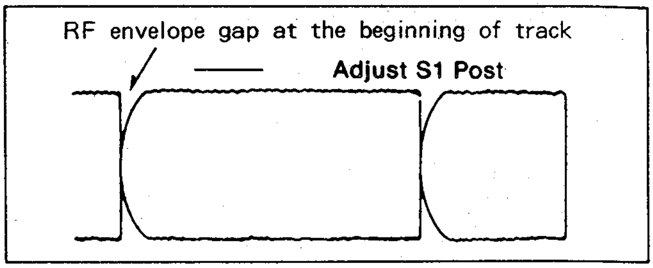

RF envelope gap at the beginning of track
Adjust S1 Post

Fig. M36

(4) When the RF envelope has a gap at the end of the track, adjust height of T1 post.

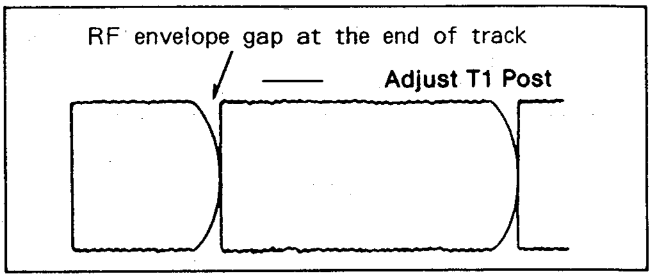

RF envelope gap at the end of track
Adjust T1 Post

Fig. M37

(5) When S2 and T1 Posts are adjusted properly, there is no gap of the RF Envelope at the beginning or end of the track as shown below.

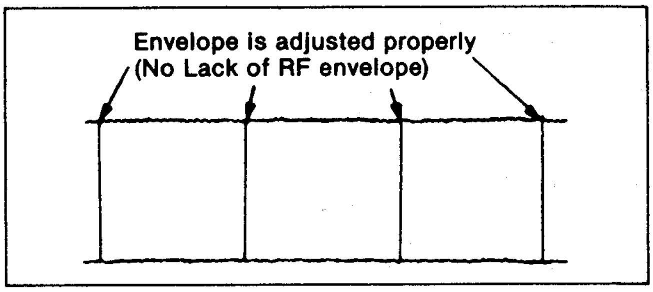

Envelope is adjusted properly
(No Lack of RF envelope)

Fig. M38

[HORIZONTAL POSITION ADJUSTMENT OF A/C HEAD]

(1) Set the tracking control to the fixed position by pressing both tracking control UP/DOWN switches at the same time, and connect the Oscilloscope to TP8001.
(2) Playback the monoscope portion of the alignment tape.
(3) Adjustment horizontal position by turning H–Position Adjustment Nut so that the envelope level is at a maximum.

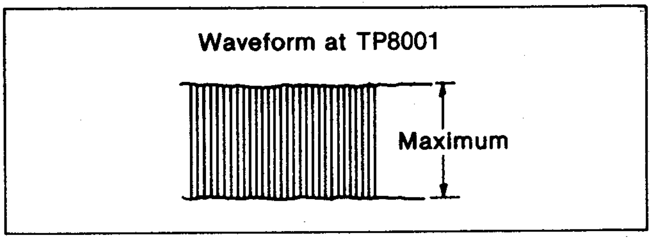

Waveform at TP8001
Maximum

Fig. M39

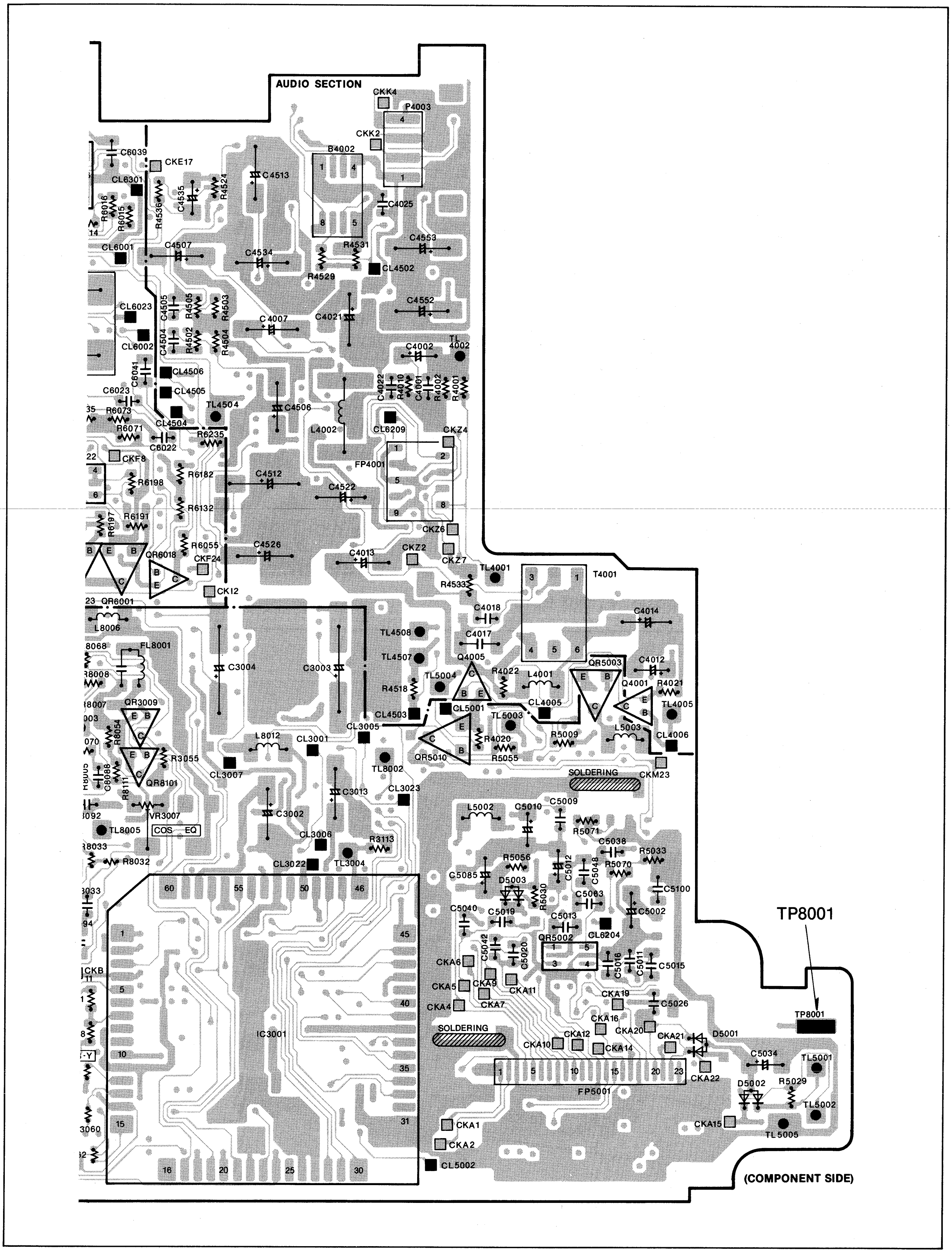
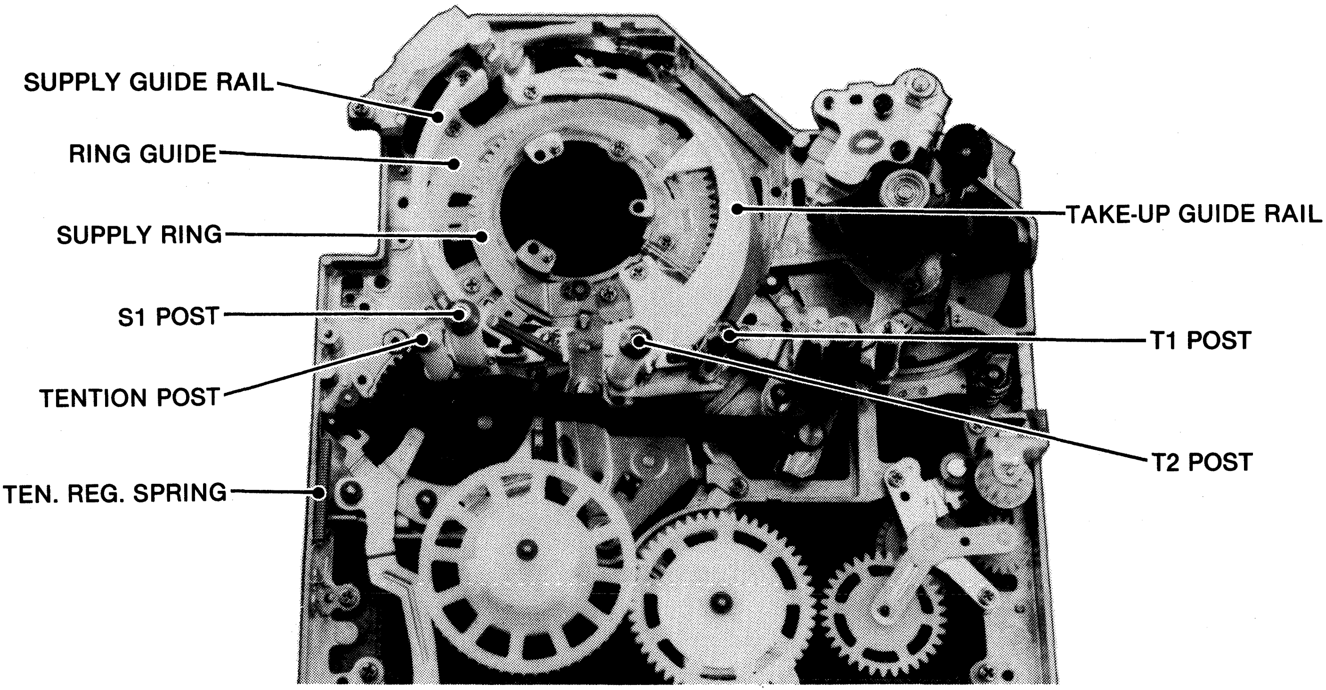

AUDIO SECTION
TP8001
(COMPONENT SIDE)
SOLDERING
SOLDERING
IC3001
FP5001
FP4001
T4001
P4003
B4002
CKK4
CKK2
CKE17
CL6301
C6039
C4513
C4535
R4524
R4536
C4025
C4507
C4534
R4531
R4529
CL4502
C4553
C4552
CL6001
CL6023
CL6002
C4505
R4505
R4503
C4504
R4502
R4504
C4007
C4021
C4002
TL 4002
C6041
CL4506
CL4505
C6023
R6073
TL4504
C4506
C4022
R4010
C4001
R4002
R4001
L4002
CL6209
CKZ4
R6071
CL4504
R6235
C6022
CKF8
R6198
R6182
C4512
C4522
R6132
R6191
R6197
R6055
C4526
C4013
CKZ2
CKZ6
CKZ7
QR6018
CKF24
CKI2
QR6001
L8006
R4533
TL4001
C4018
C4017
C4014
TL4508
TL4507
FL8001
C3004
C3003
Q4005
R4022
L4001
QR5003
C4012
Q4001
R4021
R4518
TL5004
CL4503
CL5001
CL4005
TL4005
TL5003
QR3009
R8054
CL3005
L8012
CL3001
R4020
R5009
L5003
CL4006
QR8101
R3055
CL3007
QR5010
R5055
TL8002
CKM23
C8088
R8111
C3013
CL3023
VR3007
COS EQ
C3002
TL8005
L5002
C5010
C5009
R5071
CL3006
R3113
C5038
R5033
R8032
CL3022
TL3004
R5056
C5012
C5048
R5070
C5085
D5003
R5030
C5100
C5063
C5002
C5040
C5019
C5013
CL6204
QR5002
C5042
C5020
C5016
C5011
C5015
CKA6
CKA5
CKA9
CKA11
CKA4
CKA7
CKA19
C5026
CKA16
CKA20
CKA10
CKA12
CKA14
CKA21
D5001
C5034
TL5001
CKA22
D5002
R5029
TL5002
CKA15
TL5005
CKA1
CKA2
CL5002
R3060
CKB

Fig. M40

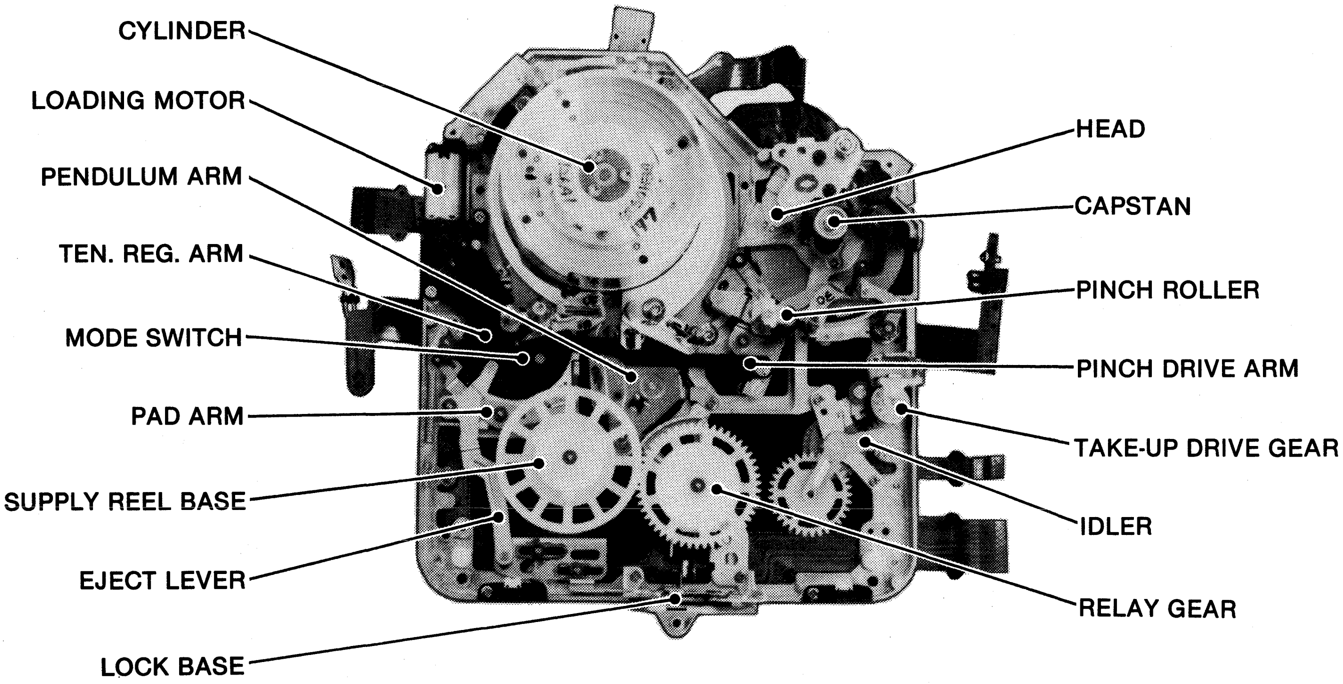
[1] Movement of Mechanism

1. Name of Mechanism



SUPPLY GUIDE RAIL
RING GUIDE
SUPPLY RING
S1 POST
TENTION POST
TEN. REG. SPRING
TAKE-UP GUIDE RAIL
T1 POST
T2 POST

*RING T is located underneath of RING GUIDE



CYLINDER
LOADING MOTOR
PENDULUM ARM
TEN. REG. ARM
MODE SWITCH
PAD ARM
SUPPLY REEL BASE
EJECT LEVER
LOCK BASE
HEAD
CAPSTAN
PINCH ROLLER
PINCH DRIVE ARM
TAKE-UP DRIVE GEAR
IDLER
RELAY GEAR

2. Movement to Mechanism

1. Loading operation

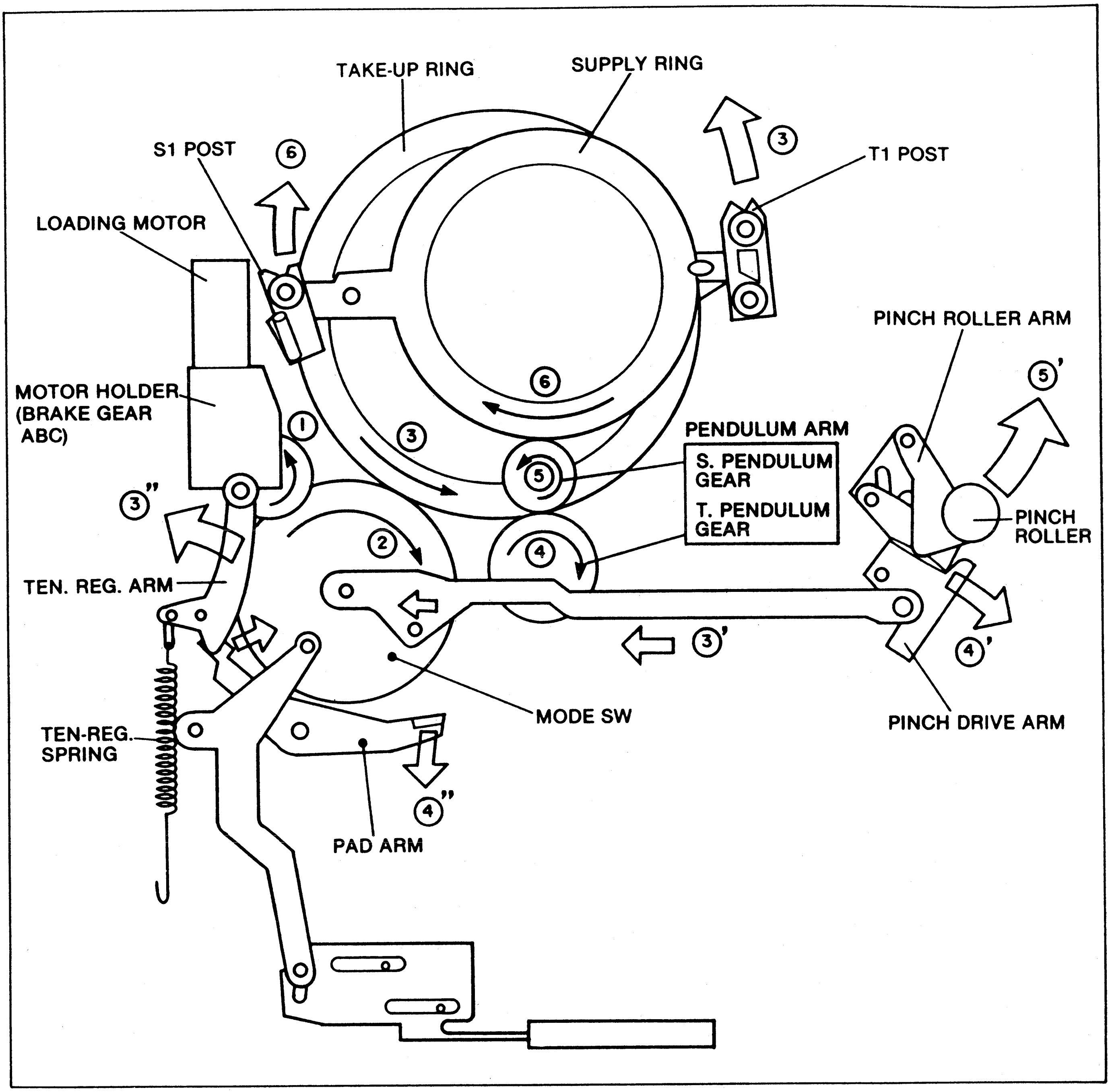

TAKE-UP RING
SUPPLY RING
S1 POST
⑥
③
T1 POST
LOADING MOTOR
PINCH ROLLER ARM
⑤'
MOTOR HOLDER (BRAKE GEAR ABC)
①
⑥
③
PENDULUM ARM
S. PENDULUM GEAR
T. PENDULUM GEAR
⑤
③"
②
④
PINCH ROLLER
TEN. REG. ARM
③'
④'
MODE SW
PINCH DRIVE ARM
TEN-REG. SPRING
④"
PAD ARM

Fig. 1 Loading Mechanism

Motive power of loading motor is transferred in the direction of the arrow.

Drive of loading post.
Head Contact Pinch Roller with capstan shaft.
(Play Position)
Head Contact Pad Arm with S.Reel table.
(Play Position)

2. Eject operation

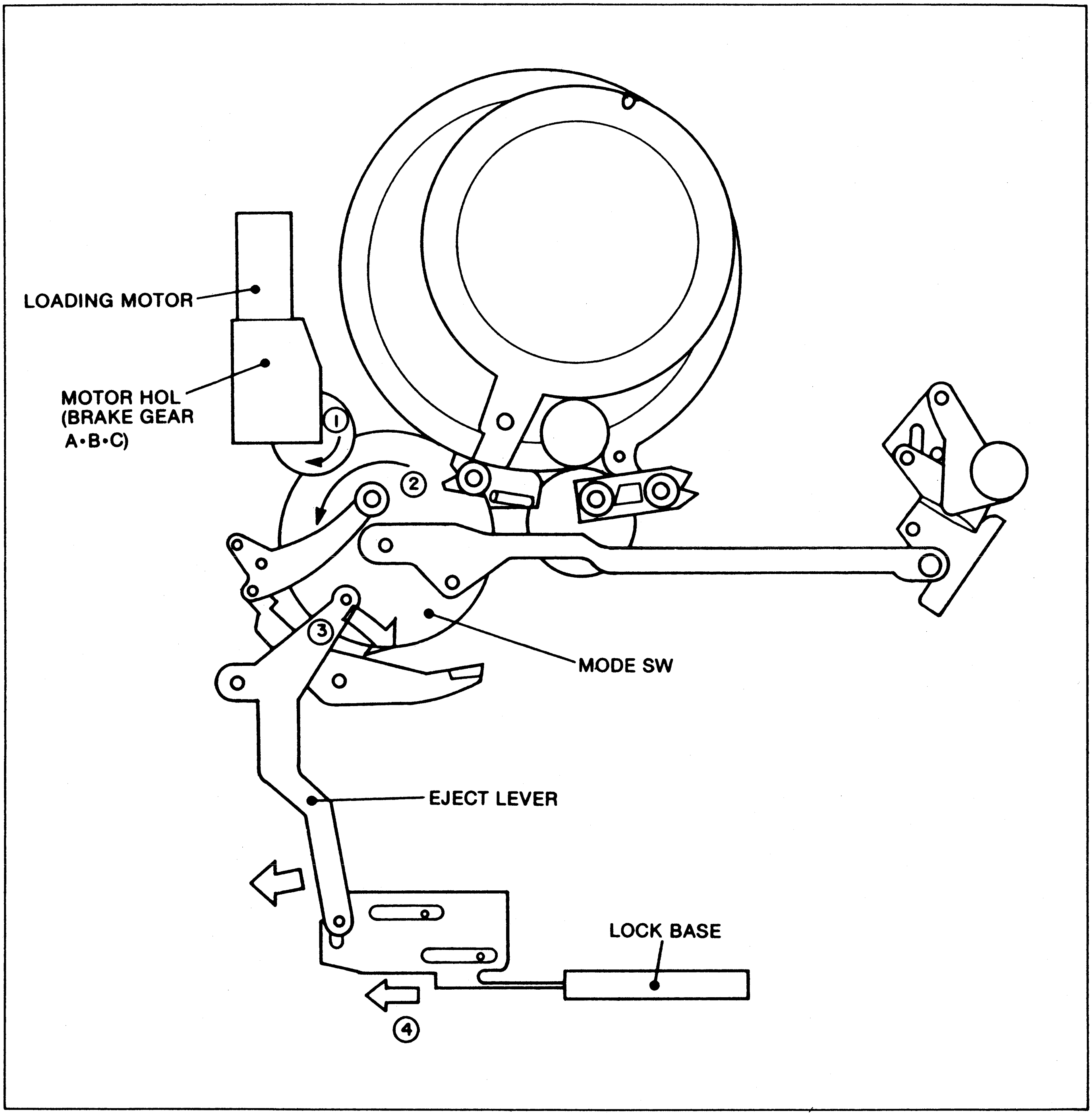

LOADING MOTOR
MOTOR HOL
(BRAKE GEAR
A•B•C)
①
②
③
④
MODE SW
EJECT LEVER
LOCK BASE

Fig. 2 Loading mechanism

Motive power of loading motor is transferred in numerical order.

After cassette up operation, the gears are moved in the opposite direction of the arrows, tp turn back stop1 position.

3. Movement of Reel table

1. FF operation

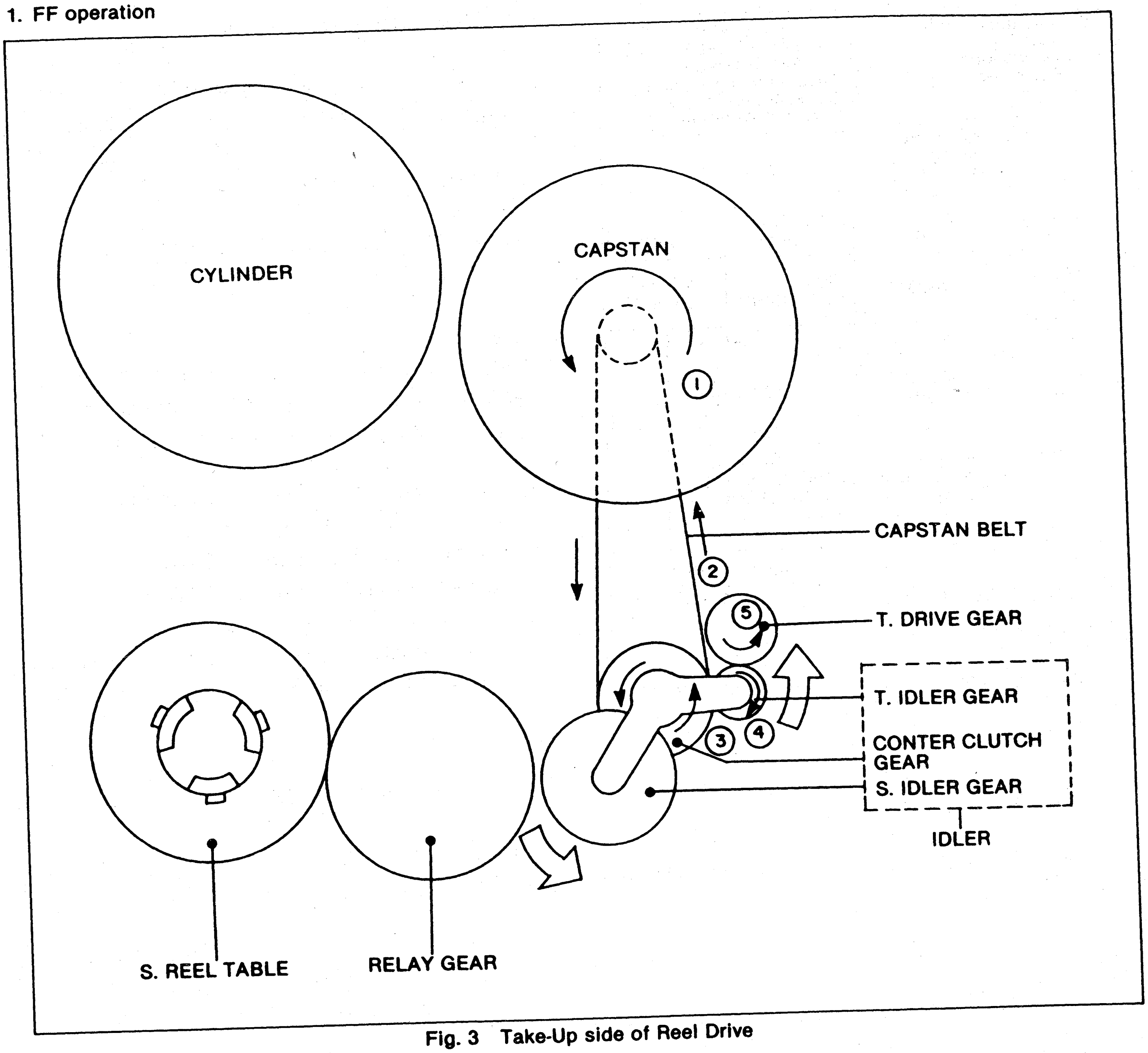

CYLINDER
CAPSTAN
①
CAPSTAN BELT
②
⑤
T. DRIVE GEAR
T. IDLER GEAR
③
④
CONTER CLUTCH GEAR
S. IDLER GEAR
IDLER
S. REEL TABLE
RELAY GEAR

Fig. 3 Take-Up side of Reel Drive

Motive Power of Capstan motor is transferred to idler (Center clutch Gear) through the capstan belt.
At this time, Position of idler is decided by rotation of capstan motor.
After that, Motive power is transferred in numerical order.
Finally, Take-up Reel is rotated by T.Drive Gear. Pad Arm is moved by Ten. Reg. Arm, and then (the Ten.Reg.Arm is moved into contact) with lower side of S.Reel table in order to apply back tension to tape.

2. REW operation

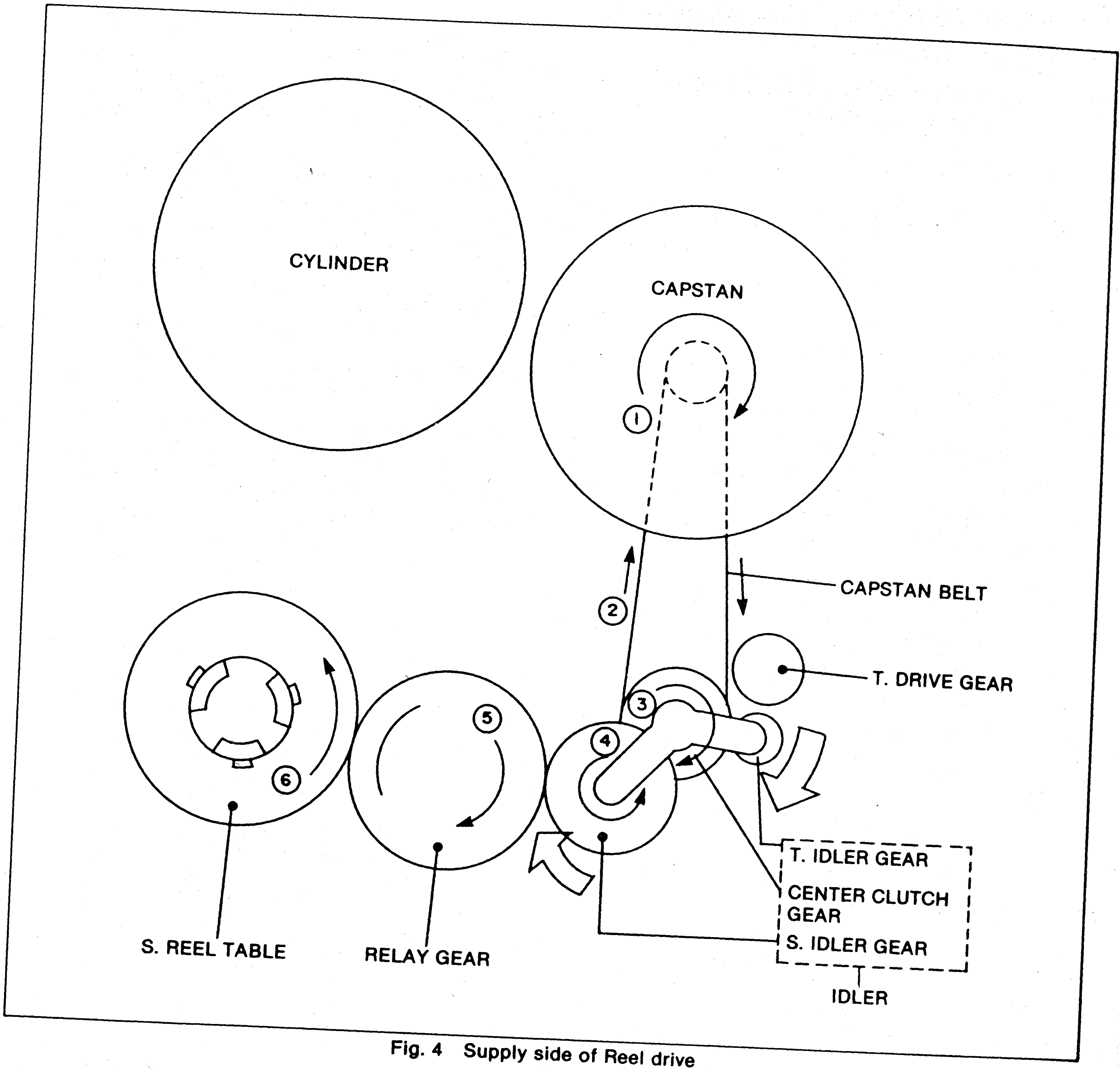

CYLINDER
CAPSTAN
①
②
CAPSTAN BELT
T. DRIVE GEAR
③
④
⑤
⑥
T. IDLER GEAR
CENTER CLUTCH GEAR
S. IDLER GEAR
IDLER
S. REEL TABLE
RELAY GEAR

Fig. 4 Supply side of Reel drive

Motive power is transmitted in numerical order.
At this time, idler is in contact with the Relay Gear by capstan rotation.
Back tension is generated by contact Drive Gear T with REW Torgue spring(Including the idler unit).

2 Alignment of Mechanism

Following mechanichal phase condition is important for mechanichal alignment.

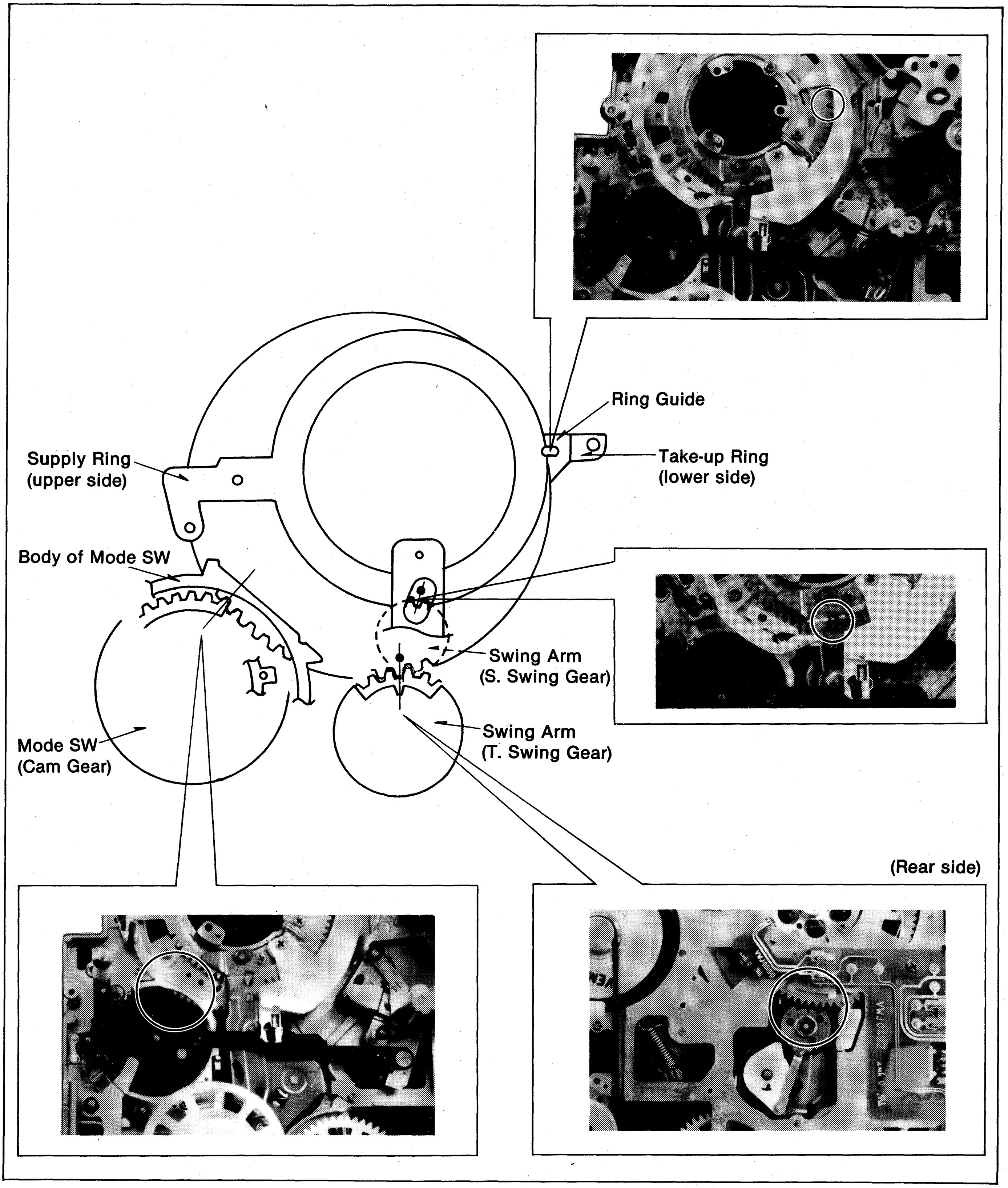
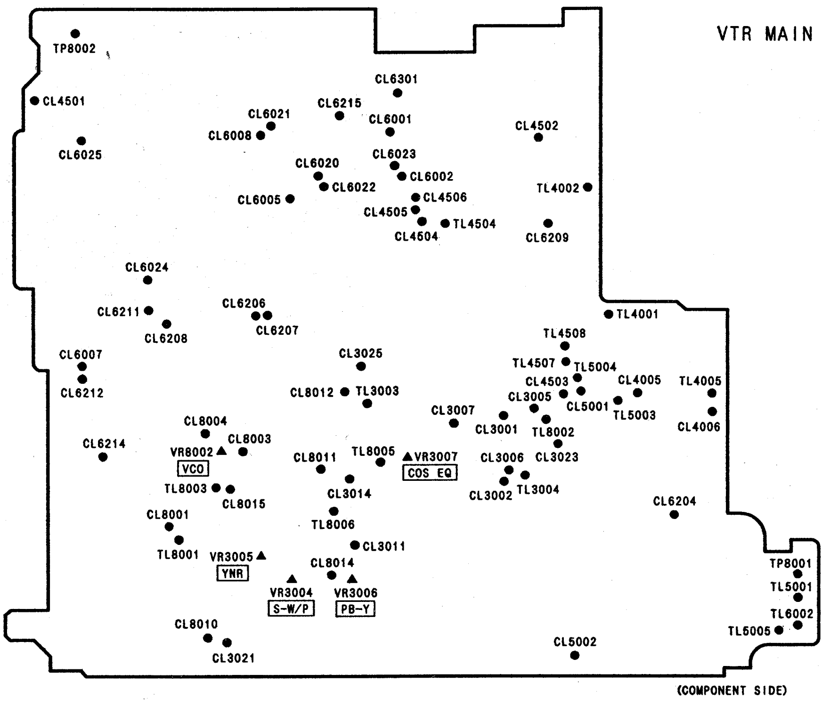

Ring Guide
Take-up Ring
(lower side)
Supply Ring
(upper side)
Body of Mode SW
Swing Arm
(S. Swing Gear)
Mode SW
(Cam Gear)
Swing Arm
(T. Swing Gear)
(Rear side)

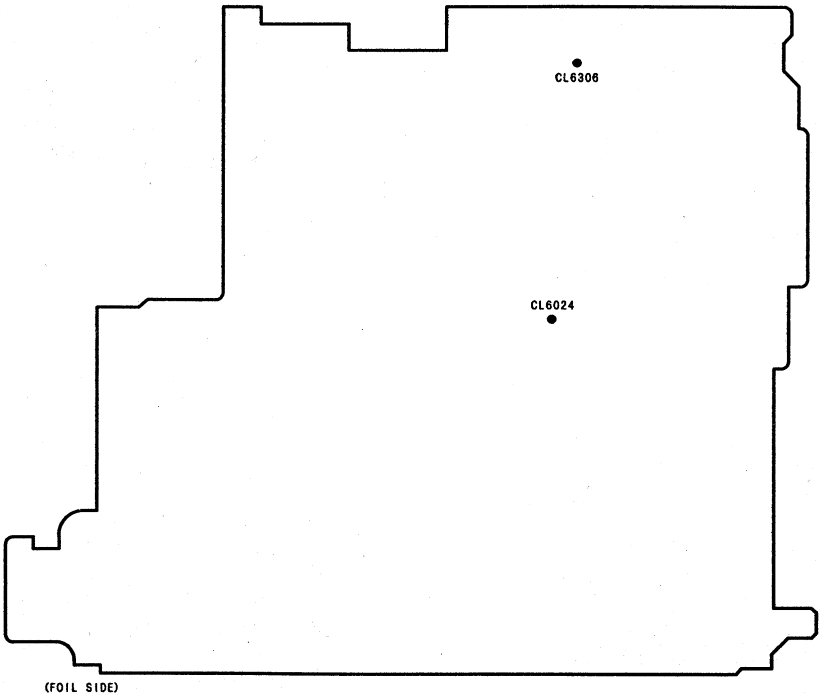
Fig. 5 Mechanism Phase

Note: Adjustment procedure supplement for camera unit is separate volume from now.
Please refer to following manual for detail of adjustment procedure of camera.
Order number for adjustment procedure (camera) supplement: VMD9405M118.
(It will be supplied a few weeks later.)

LOCATION OF TEST POINTS & CONTROLS

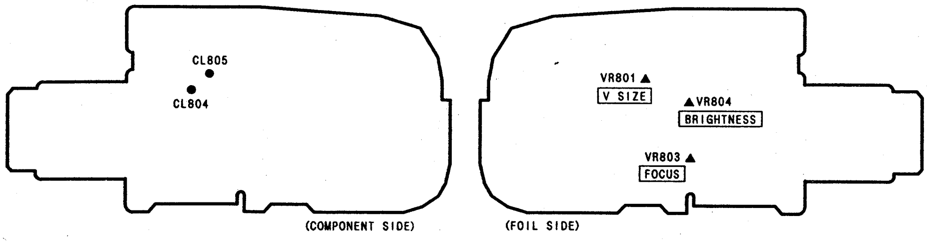
VTR MAIN C. B. A.


TP8002
CL4501
CL6025
CL6301
CL6215
CL6021
CL6001
CL6008
CL4502
CL6020
CL6023
CL6002
CL6022
CL6005
CL4506
TL4002
CL4505
TL4504
CL4504
CL6209
CL6024
CL6206
CL6211
CL6207
CL6208
TL4001
TL4508
CL6007
CL3025
TL4507
TL5004
CL4503
CL4005
TL4005
CL6212
CL8012
TL3003
CL3005
CL5001
TL5003
CL3007
CL8004
CL3001
TL8002
CL4006
CL6214
CL8003
VR8002
VCO
CL8011
TL8005
VR3007
COS EQ
CL3006
CL3023
TL8003
CL3014
CL3002
TL3004
CL8015
CL6204
CL8001
TL8006
CL3011
TL8001
VR3005
YNR
CL8014
TP8001
TL5001
VR3004
S-W/P
VR3006
PB-Y
TL6002
TL6005
CL8010
CL5002
CL3021
(COMPONENT SIDE)


CL6306
CL6024

(FOIL SIDE)

E. V. F. C. B. A.


CL805
CL804
VR801
V SIZE
VR804
BRIGHTNESS
VR803
FOCUS

(COMPONENT SIDE) (FOIL SIDE)

2-6. ELECTRICAL ADJUSTMENT PROCEDURE

2-6-1. ELECTRICAL ADJUSTMENT FOR VTR SECTION

TESTEQUIPMENT AND TOOLS

The following equipments are requied for adjustment of VTR section of VHS-Movie.

1. D.V.M(Digital Volt Meter).
   Voltage Range : 0.01~50V
2. Dual Trace Oscilloscope.
   Voltage Range : 0.06~50V/div
   Frequency Range : 0 ~50MHz
   Probe : 10:1 or 1:1
3. Video Sweep Generetor
   Frequency Range : 0 ~10MHz
4. Colour Monitor TV
5. Plastic Tip Driver
6. VHS-C Movie Aligment Tape(VFM8180HUPF)
7. VHS-C Blank Tape.
8. S-VHS-C Blank Tape.

Preparetion

1. Remove the casing panels.
   (please refer to disassembly method)]
2. Connect the extension cables is necessary)

VFK0972	[CAM.Main FP304 ~ POWER FP1001]
VFK0985	[VTR.Main FP5001 ~ Cylinder]
VFK0977	[VTR.Main FP6007 ~ Camera.Operation]
VFK0979	[VTR.Main FP6001 ~ Mech.Chassis]
VFK0980	[VTR.Main FP4001 ~ AC Head]
VFK0978	[VTR.Main FP6002 ~ Mech.Chassis]
VFK0841	[VTR.Main B6001 ~ POWER B1001]
VFK0949	[VTR.Main FP6005 ~ DRIVE FP2003]
VFK0973	[CAM.Main FP301 ~ VTR Main FP3003]
VFK0974	[CAM.Main P305 ~ Side Case (L)]
VFK0976	[VTR.Main P3003 ~ E.V.F P802]
VFK0975	[CAM.Main P701 ~ IR.Sensor PJ401]

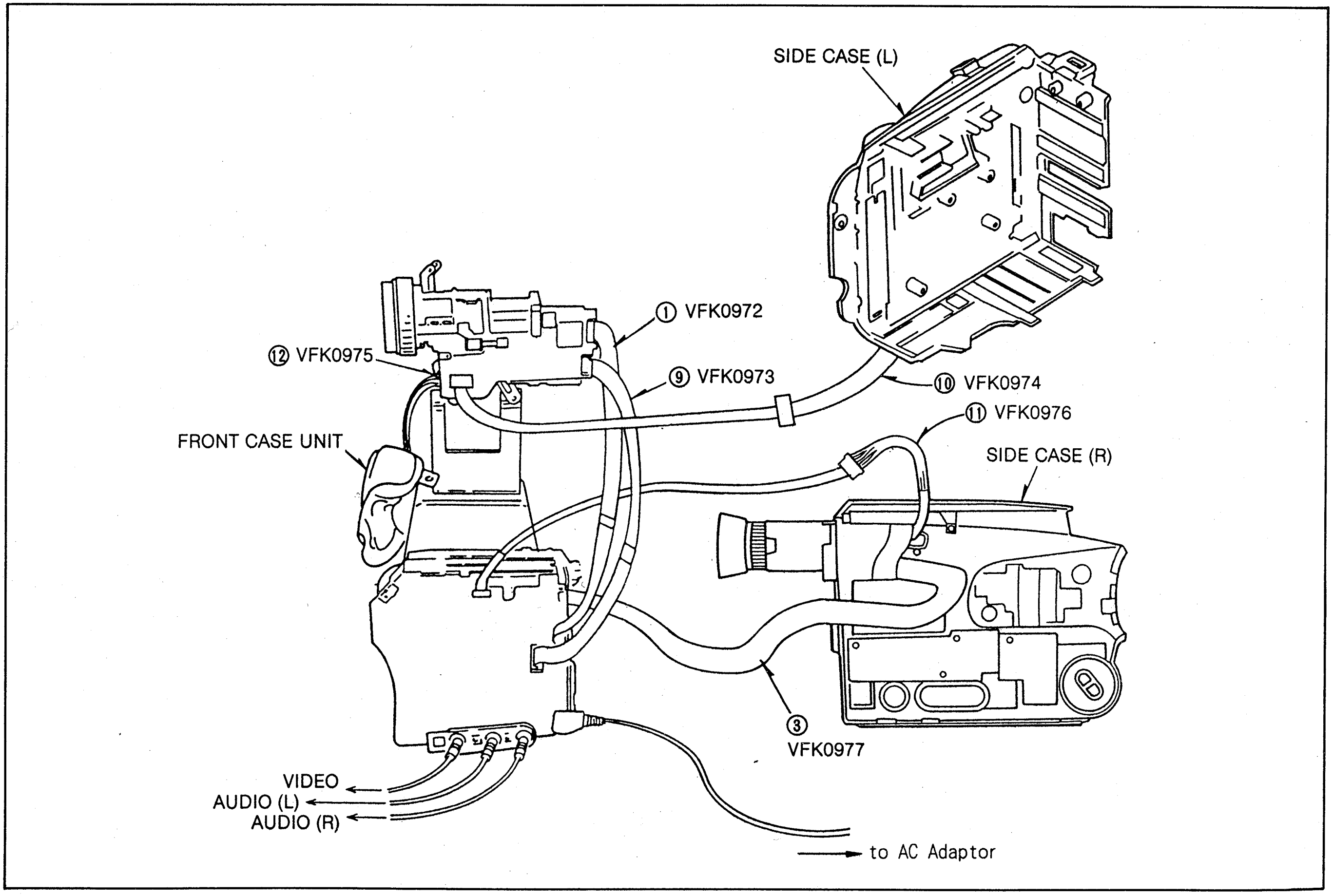
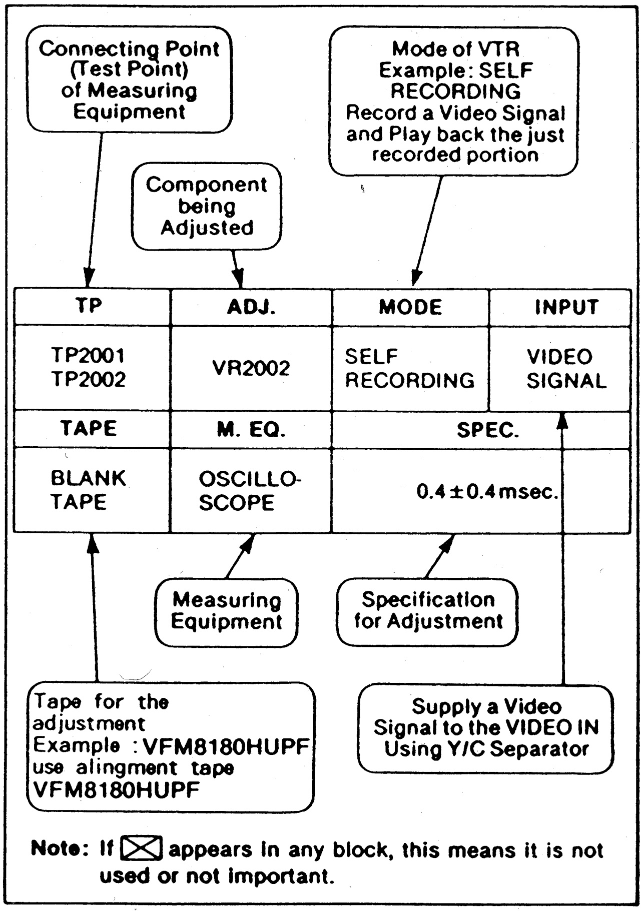

SIDE CASE (L)
① VFK0972
⑫ VFK0975
⑨ VFK0973
⑩ VFK0974
⑪ VFK0976
FRONT CASE UNIT
SIDE CASE (R)
③
VFK0977
VIDEO
AUDIO (L)
AUDIO (R)
to AC Adaptor

Fig. V1

HOW TO READ THE ADJUSTMENT PROCEDURES


Connecting Point (Test Point) of Measuring Equipment
Mode of VTR Example: SELF RECORDING Record a Video Signal and Play back the just recorded portion
Component being Adjusted
TP
ADJ.
MODE
INPUT
TP2001
TP2002
VR2002
SELF RECORDING
VIDEO SIGNAL
TAPE
M. EQ.
SPEC.
BLANK TAPE
OSCILLO-SCOPE
0.4±0.4msec.
Measuring Equipment
Specification for Adjustment
Tape for the adjustment Example :VFM8180HUPF use alingment tape VFM8180HUPF
Supply a Video Signal to the VIDEO IN Using Y/C Separator

Note: If ☒ appears in any block, this means it is not used or not important.

Fig. V2

Note: Triggering the Oscilloscope

To trigger the oscilloscope, the following test point is used.

H. Rate : Video out
V. Rate : B6004—④

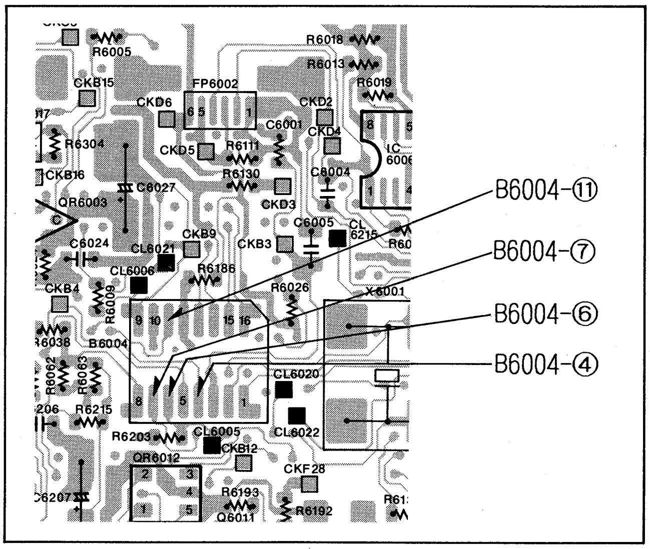

B6004-⑪
B6004-⑦
B6004-⑥
B6004-④
R6005
CKB15
FP6002
R6018
R6013
R6019
CKD6
CKD2
C6001
CKD4
R6304
CKD5
R6111
IC600
CKB16
R6130
C6027
C6004
QR6003
CKD3
C6005
CL6215
C6024
CKB9
CKB3
CL6021
CL6006
R6186
CKB4
R6009
R6026
X6001
B6004
R6038
R6062
R6063
CL6020
R6215
R6203
CL6005
CL6022
CKB12
QR6012
CKF28
R6193
R6192
Q6011

Fig V3

1. LIMINANCE & CHROMINANCE SECTION

(1). S-VHS WHITE PEAK ADJUSMENT

T P	ADJ.	MODE	INPUT
IC3001-51	VR3004	S-VHS STOP	COLOUR BAR B6004—⑩
TAPE	M. EQ	SPEC	
S-VHS-C BLANK TAPE	OSCILLOSCOPE	400±10 mVp-p	

NOTE:
Connect the jumper wire between B6004-⑦ and B6004-⑪, After that video signal can be input through B6004-⑩. Please refer to Fig. V3

1. Supply Colour bar signal to B6004—⑩.
   (1.0 ±0.1Vp-p. :75 Ohm Terminated)
2. Set the S-VHS button to S-VHS mode.
3. Connect the oscilloscope to IC3001-51.
4. Turn the unit recording mode.
5. Adjust VR3004 so that Voltage at the IC3001-51 become 400 ±10 mVp-p.

(2). VCO FREE RUN ADJUSTMENT

T P	ADJ.	MODE	INPUT
TL8005	VR8002	S-VHS REC	———
TAPE	M. EQ	SPEC	
———	FREQUENCY COUNTER	627 ±10KHz	

1. Connect the jumper wire between TL8006 and GND.
2. Connect the the jumper wire between TL8002 and TL8003(apply the 3.5V to TL8002).
3. Turn the unit to S-VHS mode.
4. Connect the Frequency Counter to TL8005.
5. Adjust the VR8002 so that signal frequency become 627±10KHz .
6. Remove the jumper wire.

(3). S-VHS PLAYBACK LEVEL ADJUSTMENT

T P	ADJ.	MODE	INPUT
S-VHS VIDEO OUT	VR3006	S-VHS REC/ PLAYBACK	COLOUR BAR B6004−⑩
TAPE	M. EQ	SPEC	
S-VHS-C BLANK TAPE	OSCILLOSCOPE	1.0 ±0.05Vp-p	

NOTE:
Connect the jumper wire between B6004-⑦ and B6004-⑪, After that video signal can be input through B6004-⑩.

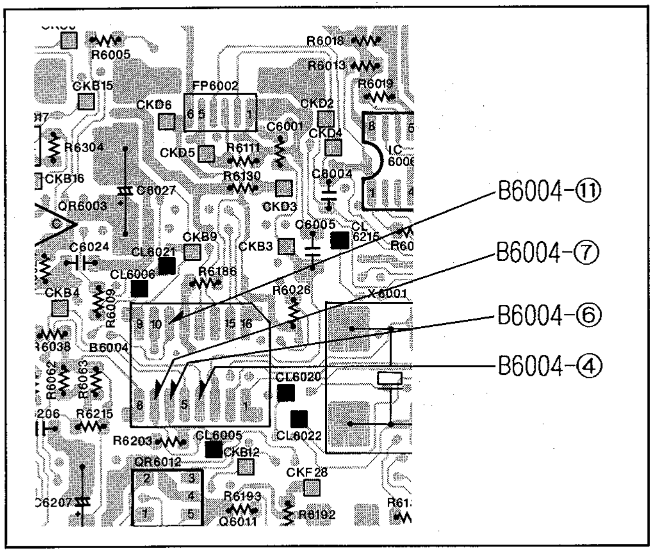

B6004-⑪
B6004-⑦
B6004-⑥
B6004-④
R6005
CKB15
CKD6
FP6002
R6018
R6013
R6019
CKD2
C6001
CKD4
CKD5
R6111
R6304
R6130
C6004
CKB16
C6027
QR6003
CKD3
C6005
C6024
CL6021
CKB9
CKB3
CL6006
R6186
R6026
X6001
CKB4
R6009
R6038
B6004
R6062
R6063
CL6020
R6215
R6203
CL6005
CL6022
CKB12
QR6012
CKF28
R6193
Q6011
R6192

Fig. V4

1. Supply the Colour Bar signal to B6004-⑩.
2. Set the unit to S-VHS mode.
3. Record the signal for few minutes.
4. Connect the oscilloscope to FP6006-③ or J1501-③ (S-VHS Y-Output)
5. Playback the recorded signal.
6. Adjust the VR3006 so that signal level is become 1.0±0.05Vp-p.

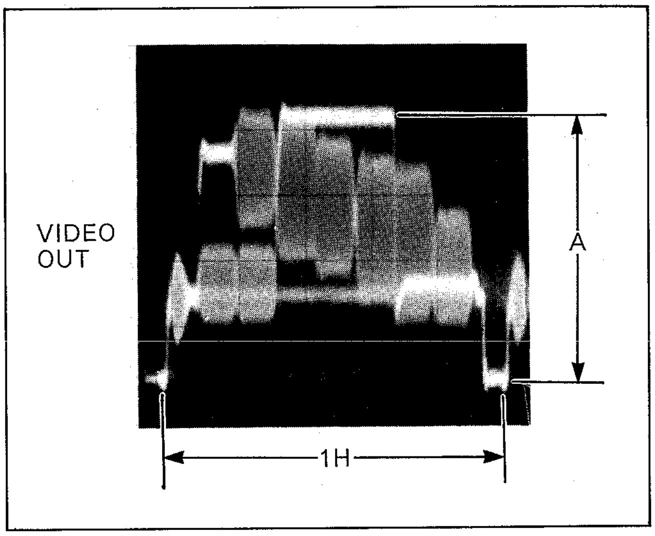

VIDEO OUT
A
1H

Fig. V5

(4). YNR ADJUSTMENT

T P	ADJ.	MODE	INPUT
TL3004	VR3005	PLAYBACK	————
TAPE	M. EQ	SPEC	
ALLIGNMENT TAPE VFM8180HUPF	OSCILLOSCOPE	SIGNAL IS MINIMIZED	

1. Playback the alignment tape.
2. Connect the oscilloscope to TL3004.
3. Adjust the VR3005 so that signal is minimized.

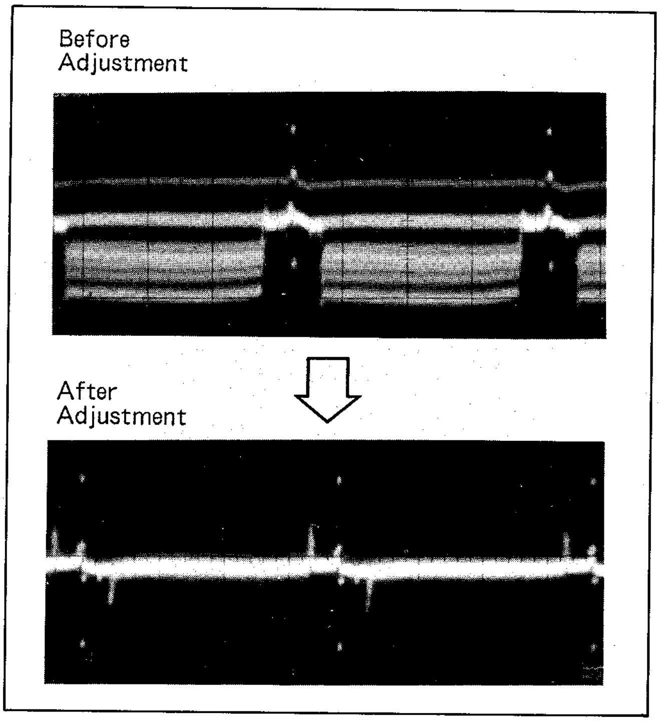

Before Adjustment
After Adjustment

Fig. V6

(5). COSINE EQUALIZER ADJUSTMENT

T P	ADJ.	MODE	INPUT
S-VHS VIDEO OUT	VR3007	S-VHS REC/ PLAYBACK	VIDEO SWEEP SIGNAL B6004-⑩
TAPE	M. EQ	SPEC	
S-VHS-C BLAN TAPE	VIDEO SWEEP GENERETOR OSCILLOSCOPE	4MHz:0.1MHz= 2.5:4 (-4±1dB(62.5%))	

NOTE:
Connect the jumper wire between B6004-⑦ and B6004-⑪, After that video signal can be input through B6004-⑩. Please refer to Fig. V8.

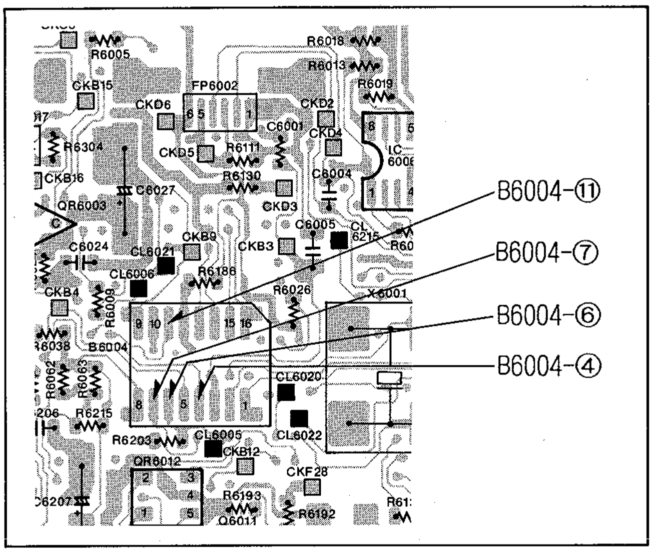
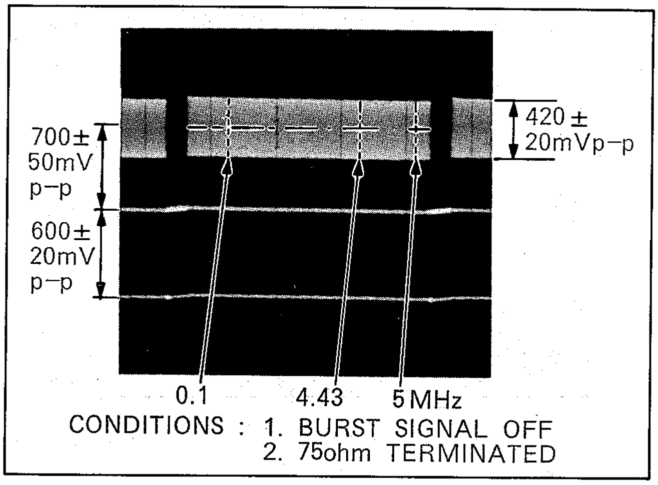

R6005
CKB15
FP6002
R6018
R6013
R6019
CKD6
CKD2
C6001
CKD4
R6304
CKD5
R6111
IC6006
CKB16
R6130
C8004
C6027
QR6003
CKD3
C6005
CL6215
C6024
CKB9
CKB3
CL6021
CL6006
R6186
CKB4
R6026
X6001
R6009
R6038
B6004
R6062
R6063
CL6020
R6215
R6203
CL6005
CKB12
CL6022
QR6012
CKF28
R6193
R6192
Q6011
B6004-⑪
B6004-⑦
B6004-⑥
B6004-④

Fig. V7

1. Set the sweep generator output as shown below.



CONDITIONS : 1. BURST SIGNAL OFF
2. 75ohm TERMINATED

Fig. V8

2. Supply the sweep signal to B6004-⑩.

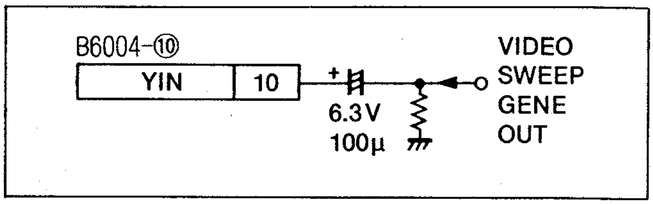

B6004-⑩
YIN
10
6.3V
100µ
VIDEO SWEEP GENE OUT

Fig. V9

3. Set the S-VHS button to S-VHS mode.
4. Record the Sweep signal for few minutes.
5. Playback the recorded signal.
6. Adjust the VR3007 so that level at 4MHz is with in spec as shown below.

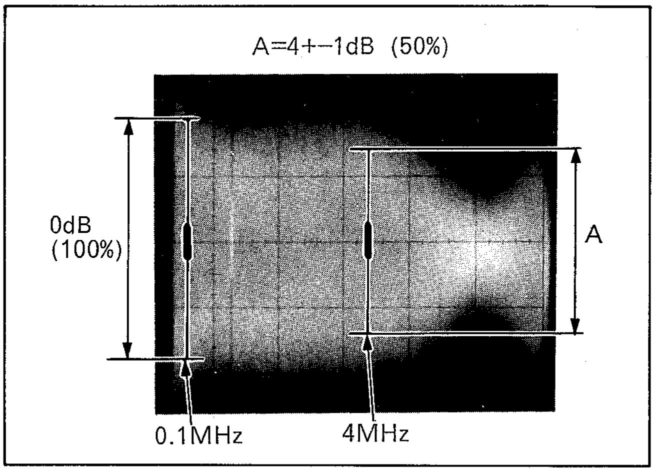


Fig. V10

2-5-2. ELECTRICAL ADJUSTMENT FOR E.V.F. SECTION

The follwing adjustment are for Electric Viewfinder.

Note:

(A). Connect the Viewfinder to unit.
(B). The camera unit circuit must be completely aligned before viewfinder adjustment are made.

(1). CENTREING ADJUSTMENT

1. Aim the camera at the registration chart.
2. Adjust the deflection yoke centreing magnets turning them so that the picture on E.V.F unit is centred.

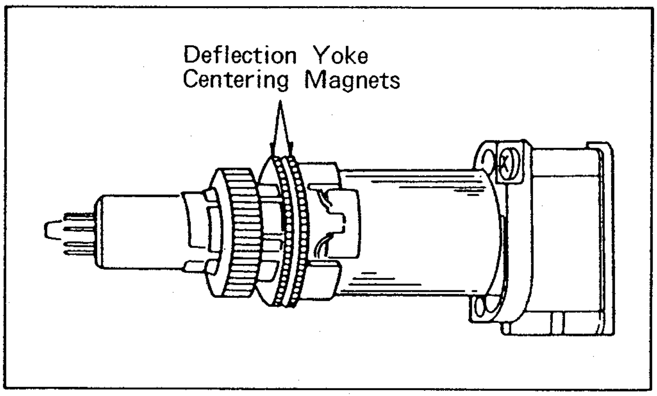


Fig. E1

(2). FOCUS ADJUSTMENT

T P	ADJ.	LENS CAP	CHART
————	VR803	NO	BALL CHART
M. EQ		SPEC	
VIEWFINDER		BEST RESOLUTION	

NOTE: VR803 is located on E.V.F.C.B.A

1. Aim the camera at the Ball Chart.
2. Adjust the VR803 for best resolution in Viewfinder.

NOTE:
After perfoming this adjustment, confirm position of "A" part on the VR803.
"A" part must be outside of 100 degree.
When "A" part is inside of 100 degree, must be re-adjust it..

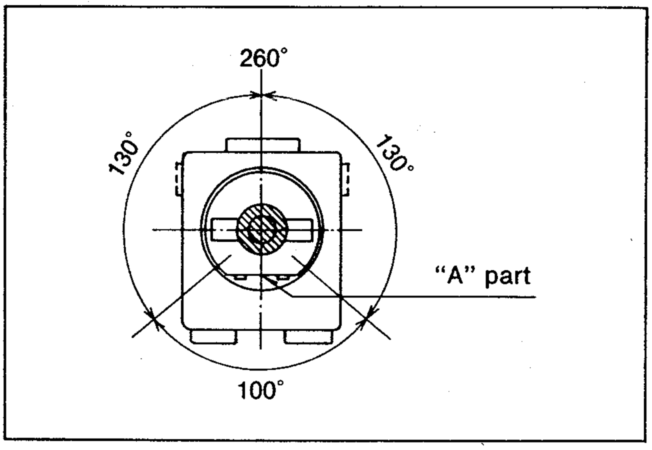


Fig E2

(3). VERTICAL SIZE ADJUSTMENT

T P	ADJ.	LENS CAP	CHART
————	VR801	NO	GRAY SCALE CHART
M. EQ		SPEC	
VIEWFINDER		VERTICAL SIZE IS FIXED	

NOTE: VR801 is located on E.V.F.C.B.A

1. Aim the camera at the Gray Scale Chart.
2. Adjust the VR801 for best vertical size. (Picture does not roll as shown below.)

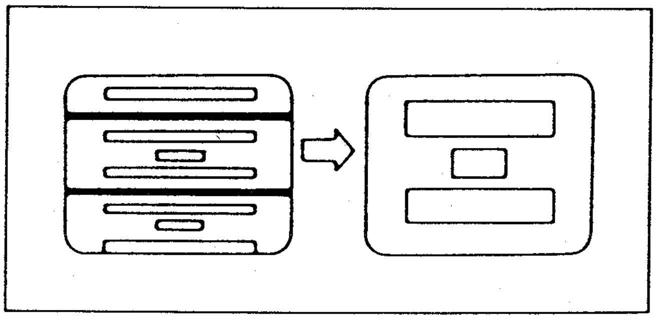


Fig. E3

(4). BRIGHTNESS ADJUSTMENT

T P	ADJ.	LENS CAP	CHART
————	VR804	NO	GRAY SCALE CHART

M. EQ	SPEC
VIEWFINDER	NATURAL GRADATION

NOTE: VR804 is located on E.V.F.C.B.A

1. Aim the camera at the Gray Scale Chart.
2. Adjust the VR804 so that the brightness in the viewfinder is the same as monitor TV screen.

NOTE: Following Adjustments required EVR fixture.
So, adjustment procedure described on Service manual VMD9405M118

1: Croma Recording Current Adjustment
2: Luminance Recording Current Adjustment
3: PG shifter Adjustment
4: FM Carrier Ferquency Adjustment
5: FM Audio Recording Current Adjustment

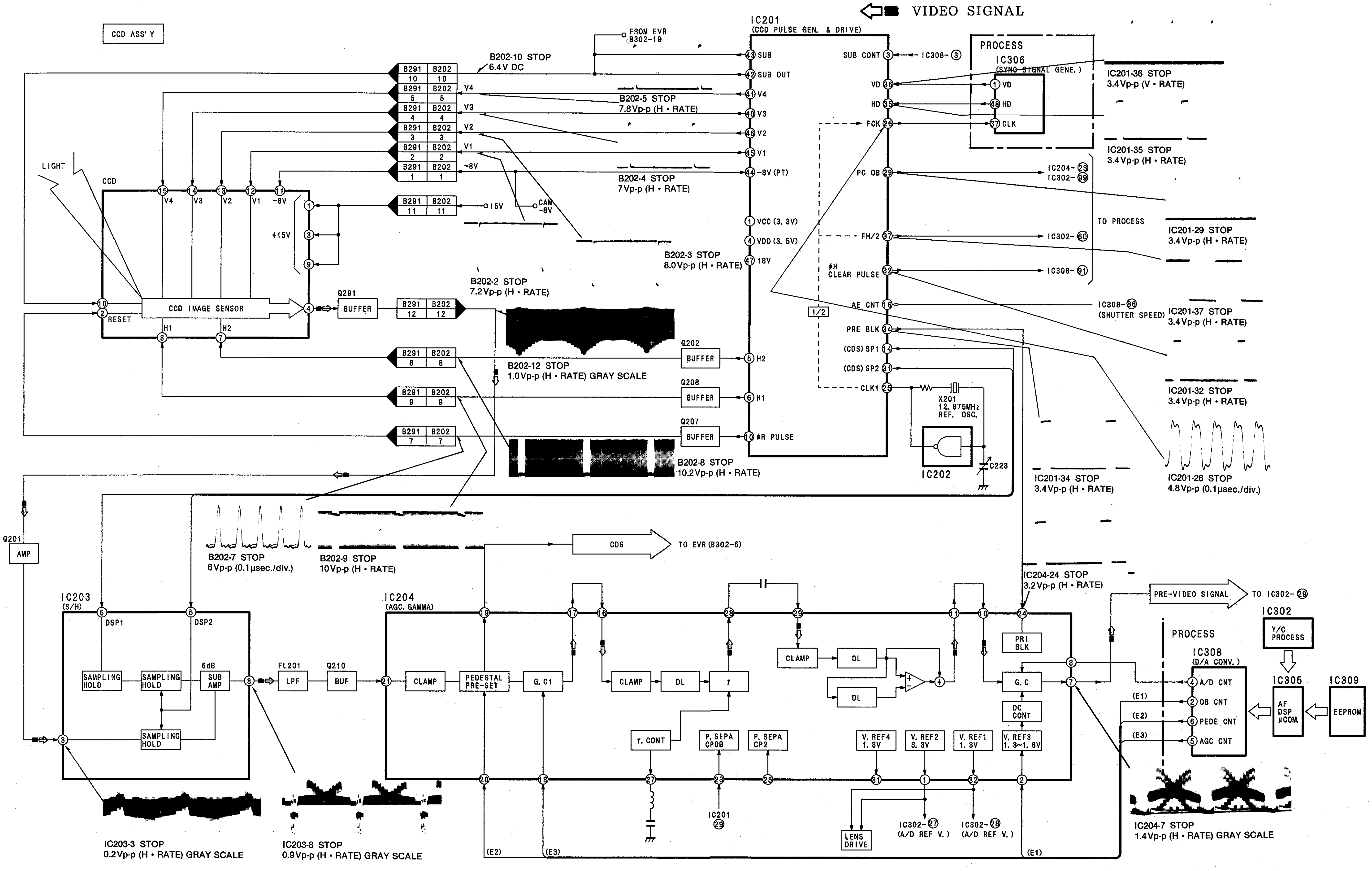
SECTION 3
BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS

3-1. ABBREVIATIONS

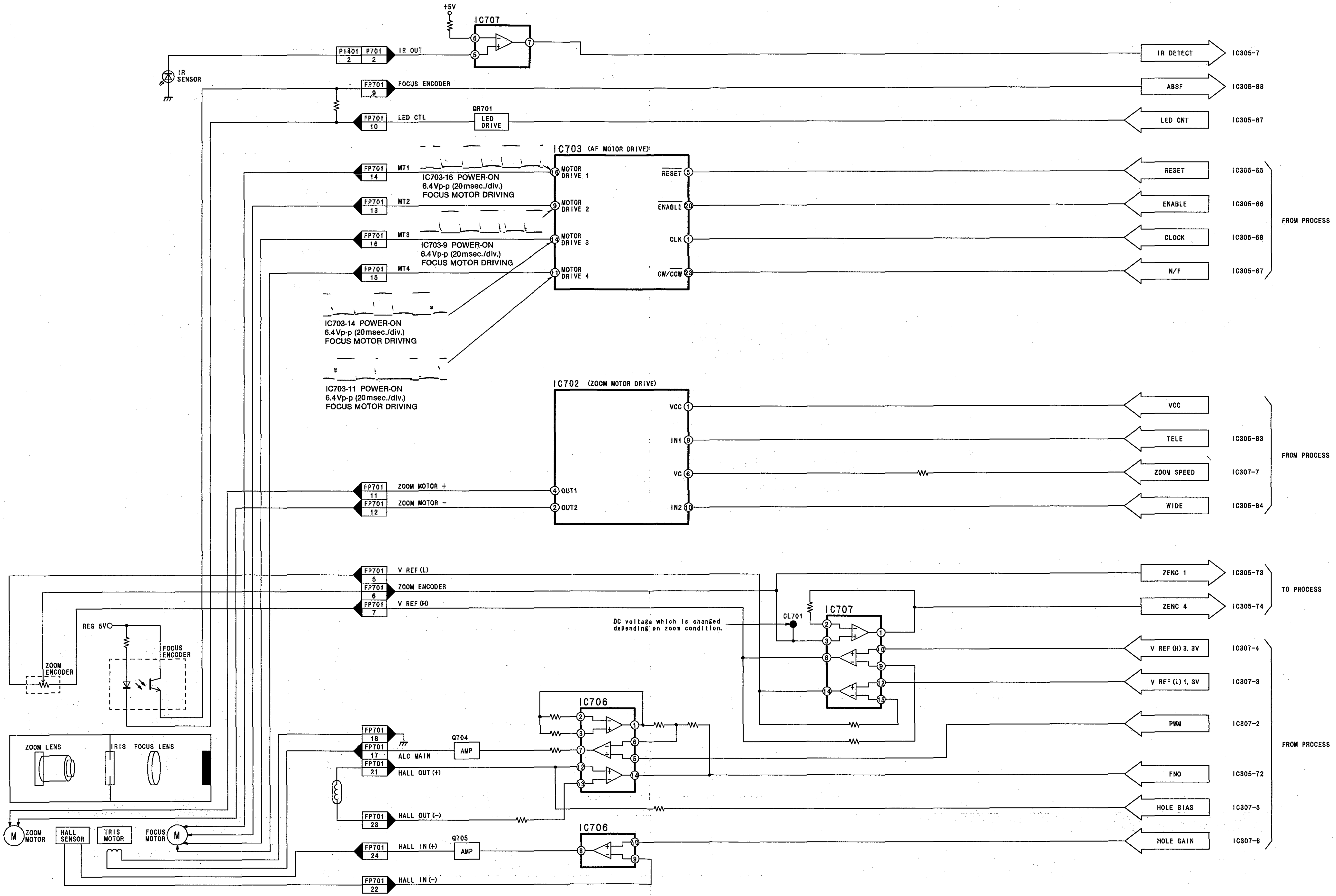
INITIAL/LOGO		ABBREVIATION
	3R3V	3.3V
A	A.TR	AUTO TRACKING
	ABSF	FOCUS ENCORDER INPUT
	ADCLK	A/D CLOCK
	ADCNT	A/D CONTROL
	ADREC	AUDIO DELAIED REC
	ADUB	AUDIO DUBBING
	AE	AUTO EXPOSURE
	AECNT	AUTO EXPOSURE CONTROL
	AEIRQ	AUTO EXPOSURE INTERRUPT REQUEST
	AFADE	AUDIO FADE
	AGCCNT	AUTO GAIN CONTROL
	ALCCNT	ALC CONTROL
	ALCMAIN	ALC DRIVE
	AMUT	AUDIO MUTE
	AORP	AUDIO OVER LAP PULSE
	APS	AUTO POWER SAVER
	ARTV	ARTIFICAL VERTICAL SYNC
	AWTB	AUTO WHITE TRACKING B-Y SIDE
	AWTR	AUTO WHITE TRACKING R-Y SIDE
B	B-Y KB	B-Y CARRIER BALANCE
	BACK	BACK UP
	BEND	BLOCK AVERAGE DATA INTERRUPT
	BF	BURST FLUG PULSE
	BFA	BURST FLUG FOR ENCODER
	BL	BACK LIGHT
	BLDIN	BACK LIGHT DRIVE PULSE INPUT
	BLDOUT	BACK LIGHT DRIVE PULSE OUTPUT
	BLK	BLANKING PULSE
	BM	BALANCED MODULATOR
	BUF	BUFFER
C	CAPVM	CAPSTAN MOTOR CURRENT
	CCW	COUNTER CLOCK WISE
	CDS	CCD (SENSOR CIRCUIT) OUTPUT
	CFM 1~4	CHROMINANCE FIELD MEMORY
	CGC	CHROMINANCE GAIN CONTROL
	CH1	Channel 1 (Odd field)
	CHR MIX	CHARACTER MIX
	CK or CLK	CLOCK
	CLK2	CLOCK 2 (824XFH=12.875MHz)
	CMEM	CHROMINANCE MEMORY SIGNAL
	CMO	CHROMA MEMORY OUTPUT
	CO0~7	CHROMA OUTPUT (DIGITAL:8BIT)
	CP	CLAMP PULSE
	CPOB	OB CLAMP PULSE
	CS	CHIP SELECT
	CSEL1~2	CLOCK PHASE SELECT
	CW	CLOCK WISE
	CYLVM	CYLINDER MOTOR CURRENT
D	D MODE0~2	DIGITAL MODE SWITCH SIGNAL
	D0 ~ D8	VIDEO OUT (DIGITAL 9BIT)
	DCLR	DIGITAL CLEAR
	DICLK	DIGITAL CLOCK
	DISCS	DIS CHIPSELECT
	DL	DELAY LINE
	DRK	DARK
	DS 1~2	DOUBLE SAMPLING PULSE
	DSP	DIGITAL SIGNAL PROCESS
	DZ	DIGITAL ZOOM
	DZ/OZ	DIGITAL ZOOM/OPTICAL ZOOM
E	ECM	ELECTRIC CONDENCER MIC
	ENV DET	ENVELOPE LEVEL DETECT
	EZOOM	ELECTRIC ZOOM
F	FAR	FAR (FOCUS)
	FCK	CLOCK (SENSOR:12.875MHz)
	FENC	FOCUS ENCODER
	FH2B	FH/2 (15.625/2=7.8125kHz)
	FM MUTE	FM AUDIO MUTE
	FM0~7	FIELD MEMORY INPUT 8BIT
	FMD REC	FM AUDIO RELAYED REC
	FMOEM	FIELD MEMORY ENABLE
	FNO	F VALUE
G	GCNT	GAIN CONTROL
H	H1 ~ 2	H.CCD DRIVE PULSE
	HBRSET	HIGH BRIGHT SET
	HCLR	HIGH CLEAR
	HD	HORIZONTAL DRIVE PULSE
	HEX	HEXADECIMAL
	HLT	HIGHT BRIGHT SIGNAL
I	INTER	INTERVAL RECORDING
	IOU	R-Y ANALOGUE SIGNAL OUTPUT
	IOV	B-Y ANALOGUE SIGNAL OUTPUT
	IRQ	INTERRUPT REQUEST
	IRQ	INTERRUPT REQUEST
K	KANDO	DIGITAL GAIN-UP
L	LD	LOAD PULSE
	LEDCNT	LED CONTROL
	LI BATT	LITHIUM BATTERY
	LSB	LEAST SIGINIFICANT BIT
M	MD	MODULATOR
	MFF	MANUAL FOCUS FAR
	MFN	MANUAL FOCUS NEAR
	MSB	MOST SIGNIFICANT BIT
N	N/F	NEAR/FAR (FOCUS)
	N/P	NTSC/PAL
	NC	NO CONNECTION
	NC1~3	NPN TRANSISTOR C-SIDE
	NDE	NON LINER DE-EMPHASIS
	NEAR	NEAR (FOCUS)
	NLE	NON LINER EMPHASIS
	NRD	NON REC DATA
	NRDBLK	NON REC DATA BLANKING
	NRE	READ ENABLE INPUT(LOW ACTIVE)
	NWE	WRITE ENABLE INPUT(LOW ACTIVE)
O	OBCNT	OPTICAL BLACK CONTROL
	OE	OUTPUT ENABLE
	OP	OPERATIONAL AMP OUTPUT
	OSD	ON SCREEN DISPLAY

INITIAL/LOGO		ABBREVIATION
P	PB1～3	PNP TRANSISTOR B-SIDE
	PBLK	PRE-BLANKING
	PCBM(B-Y)	B-Y CARRIER BALANCE
	PCBM(R-Y)	R-Y CARRIER BALANCE
	PEDECNT	PEDESTAL CONTROL
	POR	POWER ON RESET
	PREBLK	PRE-BLANKING
	PT	PROTECT FOR ΦV VOLTAGE (-8V)
	PWM	PULSE WIDTH MODULATOR
R	R/B	READY/BUSY
	R-Y KB	R-Y CARRIER BALANCE
	RAD	READ ADDRESS DATA
	RAE	READ ADDRESS ENABLE
	RE	READ ENABLE
	RE	ROTARY ERASE HEAD
	RERASE	ROTARY ERASE HEAD
	RST	RESET
	RSTR	RESET READ
	RSTW	RESET WRITE
S	S/S	START/STOP
	SBO	SERIAL OUTPUT
	SBD	SERIAL DATA
	SCLK	SERIAL CLOCK
	SDET	S-VHS DETECT
	SH/IRIS	SHUTTER/IRIS SW
	STAB	S-VHS TAB SWITCH
	SUB CNT	SUB CONTROL (SHUTTER SPEED)
T	TL	TORQUE LIMIT
	TRFIX	TRACKING FIX
	TRP	TRAP
U	U/V SELCT	R-Y/B-Y SELECT SIGNAL
	UVSEL	R-Y/B-Y SELECT SIGNAL
V	V1～4	V.CCD DRIVE PULSE
	VCO	VOLTAGE CONTROL OSCILLTOR
	VCTRL or VCTR	ΦVOLTAGE CHARGE CONTROL
	VD	VERTICAL DRIVE PULSE
	VDREC	VIDEO DELAYED REC
	VIN	VIDEO IN (ANALOGUE)
	VITC	VERTICAL INTERVAL TIME CODE
	VMD1～3	VELOCITY MODE DATA (SHUTTER)
	VORP	VIDEO OVERLAP
	VRB	VOLTAGE REFERENCE BOTTOM (1.3V)
	VREF1R3V	REFERENCE VOLTAGE 1.3v
	VREF3R3V	REFERENCE VOLTAGE 3.3v
	VREFH	REFERENCE VOLTAGE HIGH SIDE
	VREFL	REFERENCE VOLTAGE LOW SIDE
	VRI	REFERENCE VOLTAGE INPUT
	VRO	REFERENCE VOLTAGE OUTPUT
	VRO	REFEREMCE VOLTAGE OUTPUT
	VRT	VOLTAGE REFERENCE TOP (3.3V)
	VSS	VERTICAL SYNC SIGNAL
W	WAD or WAE	WRITE ADDRESS ENABLE
	WE	WRITE ENABLE
	WHD	WIDE HOLIZONTAL DRIVE PULSE
Y	Y 0～7	8BIT LUMINANCE DIGITAL SIGNAL
	YNC	NOISE CANCELER (LUMINANCE)
	YNR	NOISE REDUCTION (LUMINANCE)
Z	Z ENC	ZOOM ENCODER
	Z-MIC	ZOOM MIC
	ZENC1～4	ZOOM ENCODER
	ZMT	ZOOM MOTOR TELE SIDE
	ZMT(+)/(-)	ZOOM MOTOR (+)/(-)
	ZMW	ZOOM MOTOR WIDE SIDE
Φ	φH1～2	H.CCD DRIVE PULSE
	φR	RESET PULSE
	φV1～4	V.CCD DRIVE PULSE

3-2. SENSOR BLOCK DIAGRAM

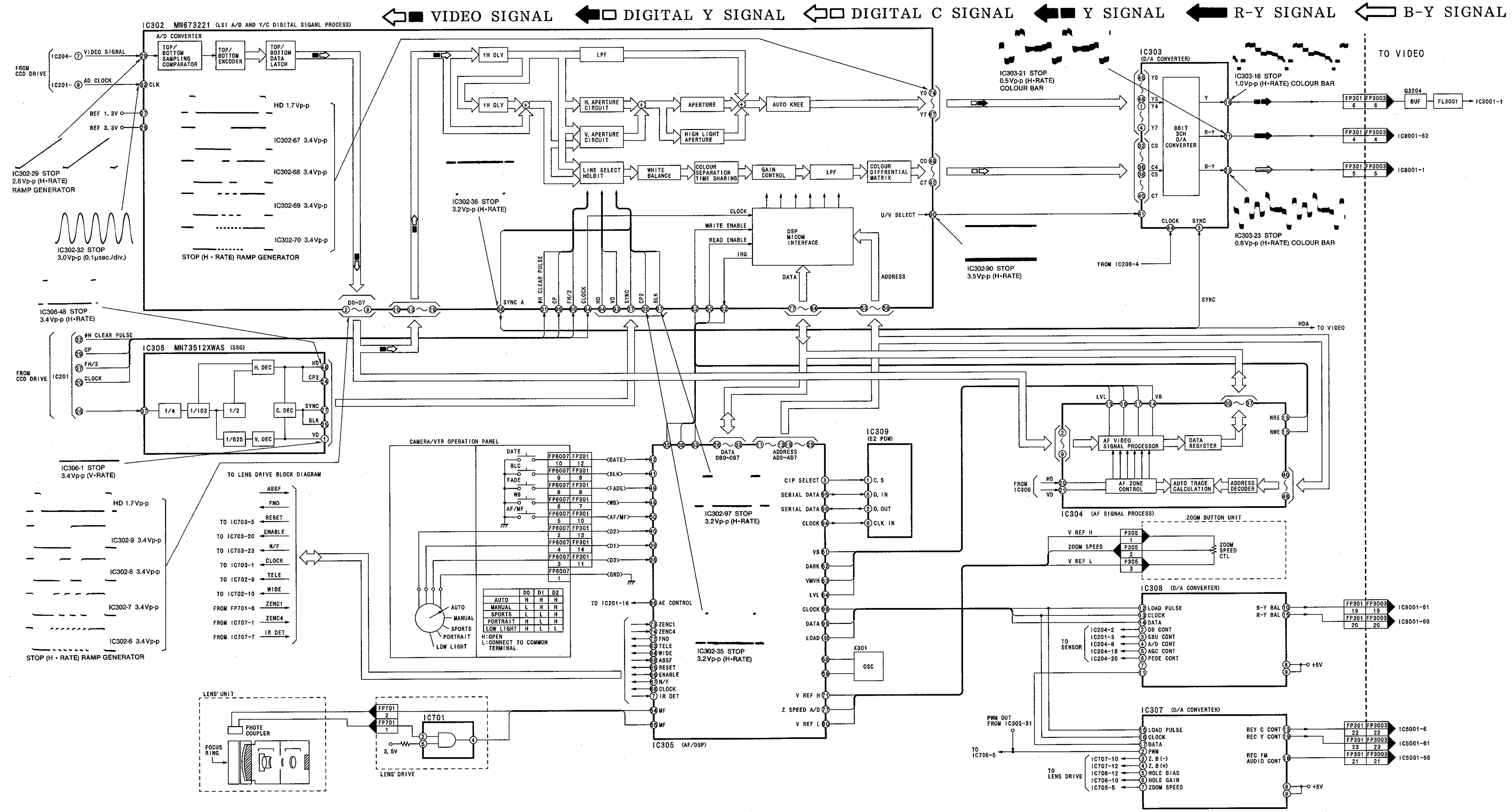

VIDEO SIGNAL
CCD ASS'Y
LIGHT
CCD
V4
V3
V2
V1
-8V
+15V
RESET
CCD IMAGE SENSOR
H1
H2
B291
B202
Q291
BUFFER
B202-10 STOP
6.4V DC
FROM EVR
B302-19
B202-5 STOP
7.8Vp-p (H • RATE)
B202-4 STOP
7Vp-p (H • RATE)
15V
CAM
-8V
B202-3 STOP
8.0Vp-p (H • RATE)
B202-2 STOP
7.2Vp-p (H • RATE)
B202-12 STOP
1.0Vp-p (H • RATE) GRAY SCALE
Q202
Q208
Q207
B202-8 STOP
10.2Vp-p (H • RATE)
IC201
(CCD PULSE GEN. & DRIVE)
SUB
SUB OUT
-8V (PT)
VCC (3. 3V)
VDD (3. 5V)
18V
ϕR PULSE
SUB CONT
IC308-③
VD
HD
FCK
PC OB
FH/2
ϕH CLEAR PULSE
AE CNT
PRE BLK
(CDS) SP1
(CDS) SP2
CLK1
1/2
X201
12. 875MHz
REF. OSC.
IC202
C223
PROCESS
IC306
(SYNC SIGNAL GENE.)
CLK
IC201-36 STOP
3.4Vp-p (V • RATE)
IC201-35 STOP
3.4Vp-p (H • RATE)
IC204-㉓
IC302-㊾
TO PROCESS
IC302-㊿
IC308-㉑
IC308-㊱
(SHUTTER SPEED)
IC201-29 STOP
3.4Vp-p (H • RATE)
IC201-37 STOP
3.4Vp-p (H • RATE)
IC201-32 STOP
3.4Vp-p (H • RATE)
IC201-34 STOP
3.4Vp-p (H • RATE)
IC201-26 STOP
4.8Vp-p (0.1μsec./div.)
Q201
AMP
B202-7 STOP
6Vp-p (0.1μsec./div.)
B202-9 STOP
10Vp-p (H • RATE)
CDS
TO EVR (B302-5)
IC203
(S/H)
DSP1
DSP2
SAMPLING HOLD
6dB
SUB AMP
FL201
Q210
LPF
BUF
IC204
(AGC, GAMMA)
CLAMP
PEDESTAL PRE-SET
G. C1
DL
γ
γ. CONT
P. SEPA CPOB
P. SEPA CP2
V. REF4 1. 8V
V. REF2 3. 3V
V. REF1 1. 3V
V. REF3 1. 3~1. 6V
PRI BLK
G. C
DC CONT
IC204-24 STOP
3.2Vp-p (H • RATE)
PRE-VIDEO SIGNAL
TO IC302-㉙
IC302
Y/C PROCESS
IC308
(D/A CONV.)
A/D CNT
OB CNT
PEDE CNT
AGC CNT
(E1)
(E2)
(E3)
IC305
AF DSP μCOM.
IC309
EEPROM
IC201 ㉙
LENS DRIVE
IC302-㉗
(A/D REF V.)
IC302-㉘
(A/D REF V.)
IC203-3 STOP
0.2Vp-p (H • RATE) GRAY SCALE
IC203-8 STOP
0.9Vp-p (H • RATE) GRAY SCALE
IC204-7 STOP
1.4Vp-p (H • RATE) GRAY SCALE

3-3. LENS DRIVE BLOCK DIAGRAM


+5V
IC707
IR SENSOR
P1401 2
P701 2
IR OUT
IR DETECT
IC305-7
FP701 9
FOCUS ENCODER
ABSF
IC305-88
FP701 10
LED CTL
QR701
LED DRIVE
LED CNT
IC305-87
IC703 (AF MOTOR DRIVE)
FP701 14
MT1
IC703-16 POWER-ON
6.4Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
MOTOR DRIVE 1
FP701 13
MT2
MOTOR DRIVE 2
FP701 16
MT3
IC703-9 POWER-ON
6.4Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
MOTOR DRIVE 3
FP701 15
MT4
MOTOR DRIVE 4
RESET
ENABLE
CLK
CW/CCW
RESET
IC305-65
ENABLE
IC305-66
CLOCK
IC305-68
N/F
IC305-67
FROM PROCESS
IC703-14 POWER-ON
6.4Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
IC703-11 POWER-ON
6.4Vp-p (20msec./div.)
FOCUS MOTOR DRIVING
IC702 (ZOOM MOTOR DRIVE)
VCC
IN1
VC
IN2
OUT1
OUT2
FP701 11
ZOOM MOTOR +
FP701 12
ZOOM MOTOR −
VCC
TELE
IC305-83
ZOOM SPEED
IC307-7
WIDE
IC305-84
FROM PROCESS
FP701 5
V REF (L)
FP701 6
ZOOM ENCODER
FP701 7
V REF (H)
ZENC 1
IC305-73
ZENC 4
IC305-74
TO PROCESS
DC voltage which is changed depending on zoom condition.
CL701
IC707
V REF (H) 3. 3V
IC307-4
V REF (L) 1. 3V
IC307-3
PWM
IC307-2
FNO
IC305-72
HOLE BIAS
IC307-5
HOLE GAIN
IC307-6
FROM PROCESS
REG 5V
ZOOM ENCODER
FOCUS ENCODER
ZOOM LENS
IRIS
FOCUS LENS
FP701 18
FP701 17
ALC MAIN
FP701 21
HALL OUT (+)
Q704
AMP
IC706
FP701 23
HALL OUT (−)
FP701 24
HALL IN (+)
Q705
AMP
IC706
FP701 22
HALL IN (−)
M
ZOOM MOTOR
HALL SENSOR
IRIS MOTOR
FOCUS MOTOR
M

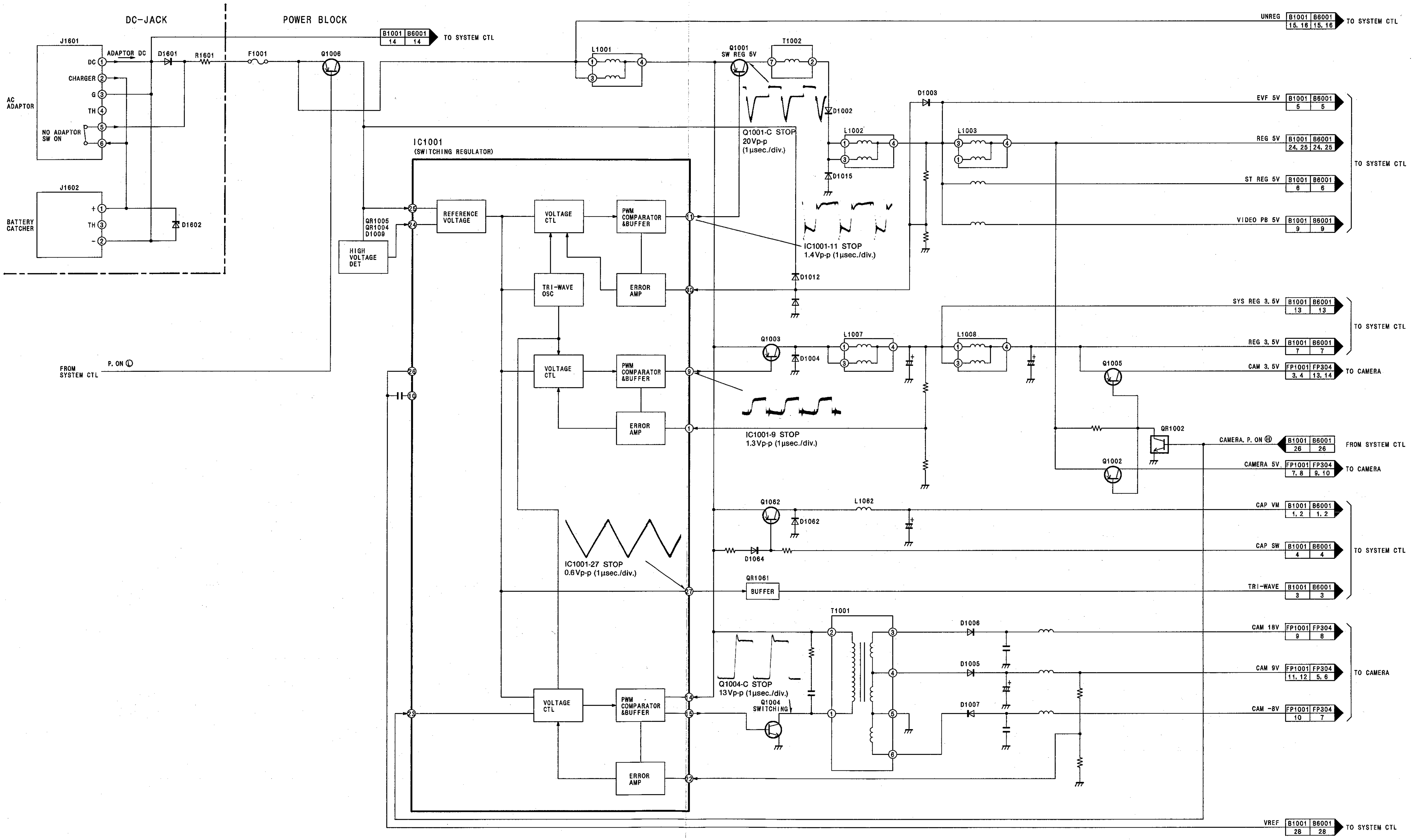
Back Page:
SENSOR Section

3-4. PROCESS BLOCK DIAGRAM



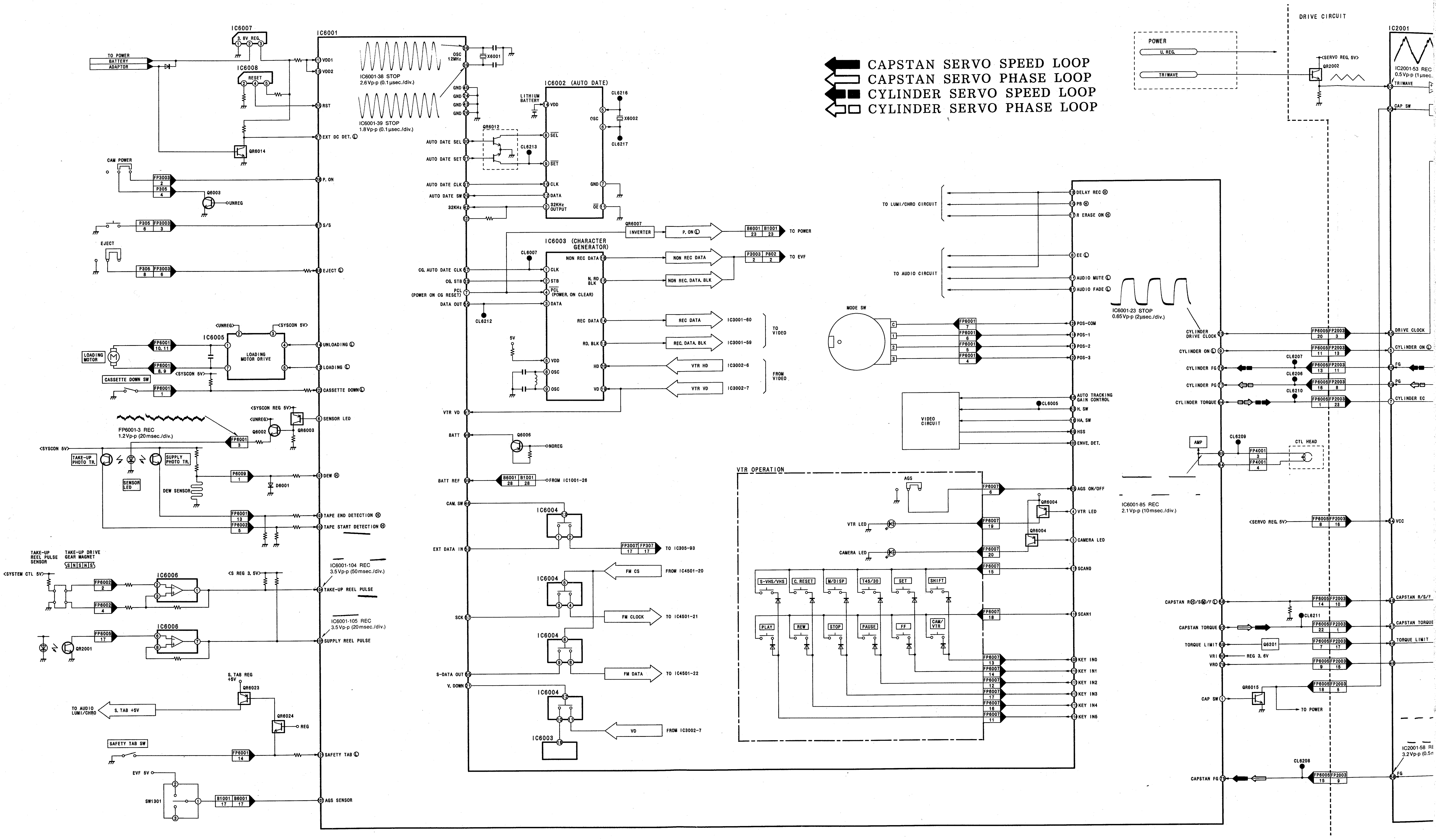
VIDEO SIGNAL
DIGITAL Y SIGNAL
DIGITAL C SIGNAL
Y SIGNAL
R-Y SIGNAL
B-Y SIGNAL
IC302 MN673221 (LSI A/D AND Y/C DIGITAL SIGANL PROCESS)
A/D CONVERTER
TOP/BOTTOM SAMPLING COMPARATOR
TOP/BOTTOM ENCODER
TOP/BOTTOM DATA LATCH
FROM CCD DRIVE
IC204-7 VIDEO SIGNAL
IC201-9 AD CLOCK
REF 1.3V
REF 3.3V
CLK
1H DLY
LPF
H. APERTURE CIRCUIT
V. APERTURE CIRCUIT
APERTURE
HIGH LIGHT APERTURE
AUTO KNEE
LINE SELECT HOLD IT
WHITE BALANCE
COLOUR SEPARATION TIME SHARING
GAIN CONTROL
COLOUR DIFFERENTIAL MATRIX
DSP MICOM INTERFACE
CLOCK
WRITE ENABLE
READ ENABLE
IRQ
DATA
ADDRESS
U/V SELECT
HD 1.7Vp-p
IC302-67 3.4Vp-p
IC302-68 3.4Vp-p
IC302-69 3.4Vp-p
IC302-70 3.4Vp-p
STOP (H・RATE) RAMP GENERATOR
IC302-29 STOP 2.6Vp-p (H・RATE) RAMP GENERATOR
IC302-32 STOP 3.0Vp-p (0.1μsec./div.)
IC302-36 STOP 3.2Vp-p (H・RATE)
IC303-21 STOP 0.5Vp-p (H・RATE) COLOUR BAR
IC303 (D/A CONVERTER)
8BIT 3CH D/A CONVERTER
IC303-18 STOP 1.0Vp-p (H・RATE) COLOUR BAR
IC303-23 STOP 0.8Vp-p (H・RATE) COLOUR BAR
IC302-90 STOP 3.5Vp-p (H・RATE)
FROM IC208-4
TO VIDEO
Q3204 BUF
FL3001
IC3001-1
IC8001-62
IC8001-1
FP301 FP3003
SYNC
HDA TO VIDEO
D0~D7
SYNC A
#H CLEAR PULSE
CP
FH/2
CLOCK
HD
VD
SYNC
CP2
BLK
IC306-48 STOP 3.4Vp-p (H・RATE)
IC306 MN73512XWAS (SSG)
FROM CCD DRIVE IC201
H. DEC
1/4
1/103
1/2
C. DEC
1/625
V. DEC
IC306-1 STOP 3.4Vp-p (V-RATE)
HD 1.7Vp-p
IC302-9 3.4Vp-p
IC302-8 3.4Vp-p
IC302-7 3.4Vp-p
IC302-6 3.4Vp-p
STOP (H・RATE) RAMP GENERATOR
TO LENS DRIVE BLOCK DIAGRAM
ABSF
FNO
RESET
ENABLE
N/F
CLOCK
TELE
WIDE
ZENC1
ZENC4
IR DET
TO IC703-5
TO IC703-20
TO IC703-23
TO IC703-1
TO IC702-9
TO IC702-10
FROM FP701-6
FROM IC707-1
FROM IC707-7
CAMERA/VTR OPERATION PANEL
DATE
BLC
FADE
WB
AF/MF
FP6007 FP301
AUTO
MANUAL
SPORTS
PORTRAIT
LOW LIGHT
D0 D1 D2
H:OPEN
L:CONNECT TO COMMON TERMINAL
TO IC201-16 AE CONTROL
DATA DB0~DB7
ADDRESS AD0~AD7
IC302-97 STOP 3.2Vp-p (H・RATE)
IC302-35 STOP 3.2Vp-p (H・RATE)
IC305 (AF/DSP)
C/P SELECT
SERIAL DATA
CLOCK
VB
DARK
VMVH
LVL
LOAD
V REF H
Z SPEED A/D
V REF L
MF
IC309 (E2 POM)
C.S
D.IN
D.OUT
CLK IN
X301 OSC
IC304 (AF SIGNAL PROCESS)
AF VIDEO SIGNAL PROCESSOR
DATA REGISTER
AF ZONE CONTROL
AUTO TRACE CALCULATION
ADDRESS DECODER
NRE
NWE
FROM IC306 HD VD
ZOOM BUTTON UNIT
V REF H
ZOOM SPEED
V REF L
P305
ZOOM SPEED CTL
IC308 (D/A CONVERTER)
LOAD PULSE
DATA
DB CONT
SBU CONT
A/D CONT
AGC CONT
PEDE CONT
TO SENSOR
IC204-2
IC201-3
IC204-8
IC204-18
IC204-20
B-Y BAL
R-Y BAL
IC8001-61
IC8001-60
+5V
IC307 (D/A CONVERTER)
PWM OUT FROM IC302-31
TO IC706-5
Z.B(-)
Z.B(+)
HOLE BIAS
HOLE GAIN
ZOOM SPEED
TO LENS DRIVE
IC707-10
IC707-12
IC706-12
IC706-10
IC705-5
REC C CONT
REC Y CONT
REC FM AUDIO CONT
IC5001-6
IC5001-61
IC5001-56
LENS' UNIT
PHOTO COUPLER
FOCUS RING
FP701
IC701
3.5V
LENS' DRIVE

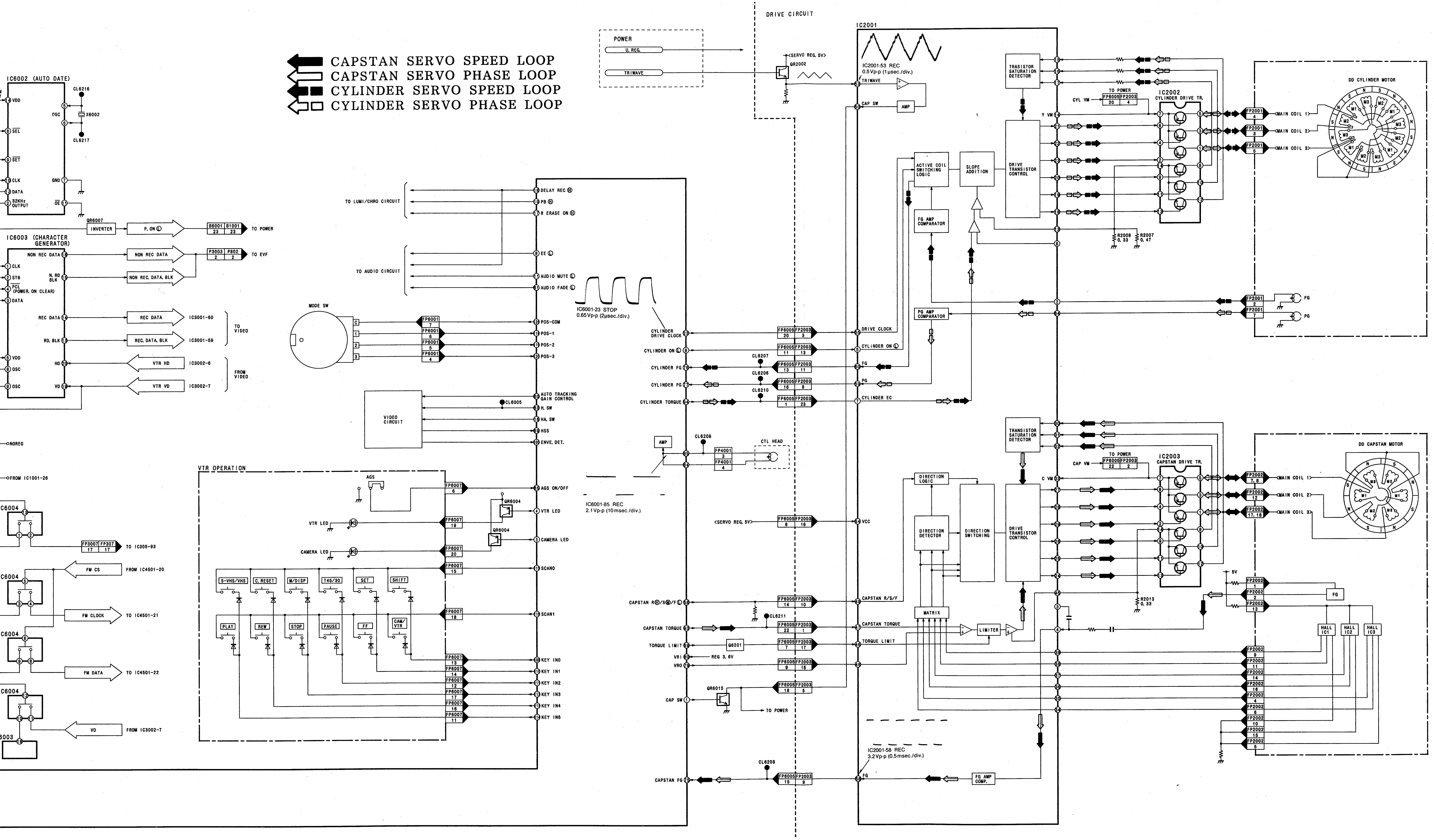
3-5. POWER BLOCK DIAGRAM


DC-JACK
POWER BLOCK
J1601
AC ADAPTOR
DC
CHARGER
G
TH
NO ADAPTOR SW ON
ADAPTOR DC
D1601
R1601
F1001
Q1006
B1001 14
B6001 14
TO SYSTEM CTL
J1602
BATTERY CATCHER
+
TH
-
D1602
FROM SYSTEM CTL
P. ON Ⓛ
L1001
Q1001 SW REG 5V
T1002
UNREG
B1001 15, 16
B6001 15, 16
TO SYSTEM CTL
D1002
Q1001-C STOP
20Vp-p
(1μsec./div.)
D1003
L1002
L1003
D1015
EVF 5V
B1001 5
B6001 5
REG 5V
B1001 24, 25
B6001 24, 25
ST REG 5V
B1001 6
B6001 6
VIDEO PB 5V
B1001 9
B6001 9
TO SYSTEM CTL
IC1001
(SWITCHING REGULATOR)
QR1005
QR1004
D1009
HIGH VOLTAGE DET
REFERENCE VOLTAGE
VOLTAGE CTL
PWM COMPARATOR &BUFFER
TRI-WAVE OSC
ERROR AMP
IC1001-11 STOP
1.4Vp-p (1μsec./div.)
D1012
SYS REG 3.5V
B1001 13
B6001 13
REG 3.5V
B1001 7
B6001 7
TO SYSTEM CTL
Q1003
D1004
L1007
L1008
Q1005
CAM 3.5V
FP1001 3, 4
FP304 13, 14
TO CAMERA
IC1001-9 STOP
1.3Vp-p (1μsec./div.)
QR1002
CAMERA. P. ON Ⓗ
B1001 26
B6001 26
FROM SYSTEM CTL
Q1002
CAMERA 5V.
FP1001 7, 8
FP304 9, 10
TO CAMERA
Q1062
D1062
L1062
CAP VM
B1001 1, 2
B6001 1, 2
D1064
CAP SW
B1001 4
B6001 4
IC1001-27 STOP
0.6Vp-p (1μsec./div.)
QR1061
BUFFER
TRI-WAVE
B1001 3
B6001 3
TO SYSTEM CTL
T1001
D1006
CAM 18V
FP1001 9
FP304 8
D1005
CAM 9V
FP1001 11, 12
FP304 5, 6
TO CAMERA
Q1004-C STOP
13Vp-p (1μsec./div.)
Q1004 SWITCHING
D1007
CAM -8V
FP1001 10
FP304 7
VREF
B1001 28
B6001 28
TO SYSTEM CTL

Back Page:
PROCESS Section

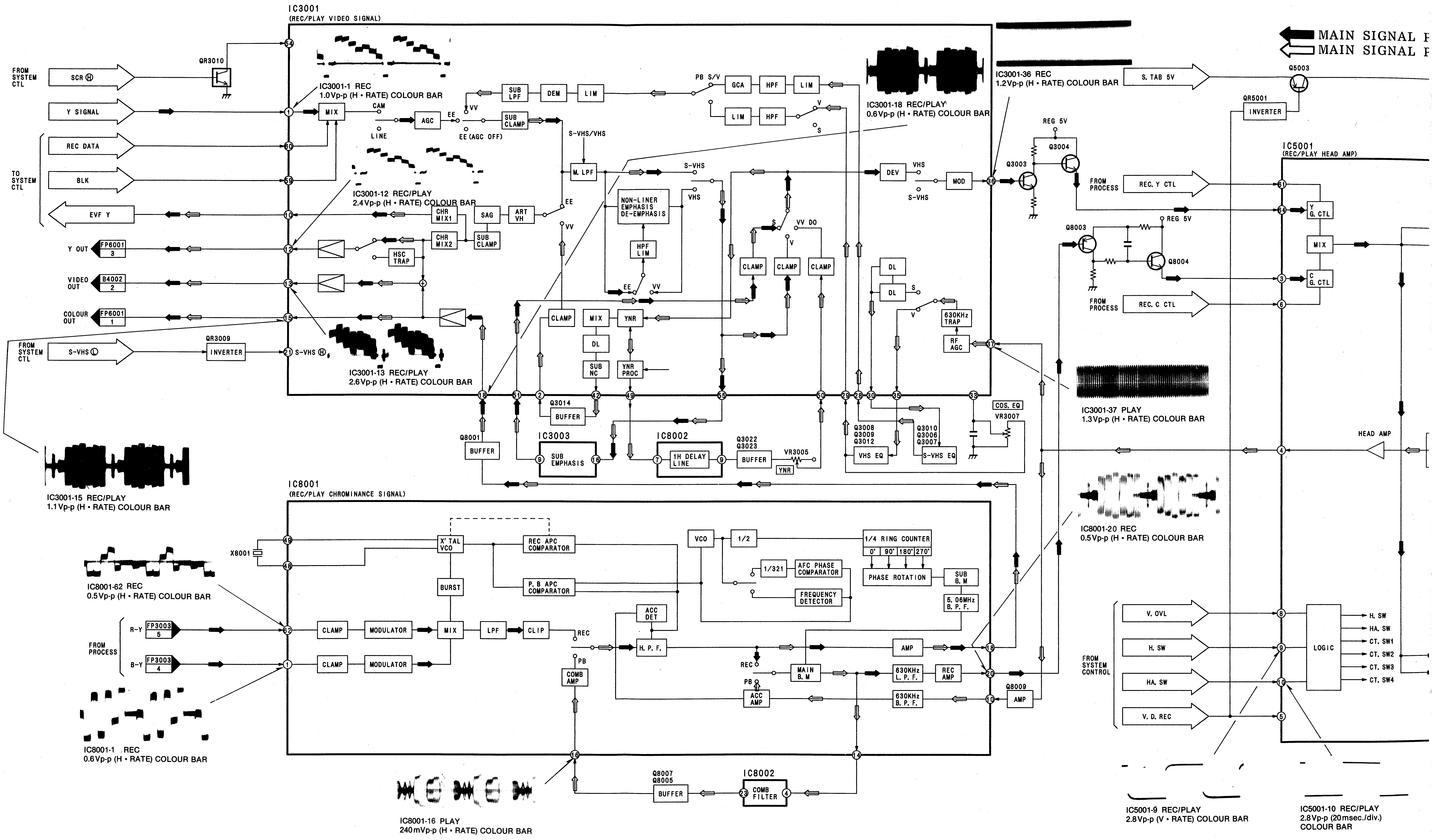
3-6. SYSTEM CONTROL & SERVO BLOCK DIAGRAM


CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
IC6001
IC6007
3. 8V REG.
TO POWER BATTERY ADAPTOR
IC6008
RESET
QR6014
VDD1
VDD2
RST
EXT DC DET.
CAM POWER
FP3003
P305
Q6003
UNREG
P. ON
S/S
EJECT
LOADING MOTOR
IC6005
LOADING MOTOR DRIVE
FP6001
<UNREG>
<SYSCON 5V>
UNLOADING
LOADING
CASSETTE DOWN SW
CASSETTE DOWN
<SYSCON REG 5V>
SENSOR LED
QR6003
Q6002
FP6001-3 REC
1.2Vp-p (20msec./div.)
TAKE-UP PHOTO TR.
SUPPLY PHOTO TR.
SENSOR LED
DEW SENSOR
P6009
D6001
DEW
TAPE END DETECTION
TAPE START DETECTION
TAKE-UP REEL PULSE SENSOR
TAKE-UP DRIVE GEAR MAGNET
<SYSTEM CTL 5V>
FP6002
IC6006
<S REG 3. 5V>
IC6001-104 REC
3.5Vp-p (50msec./div.)
TAKE-UP REEL PULSE
FP6005
QR2001
IC6001-105 REC
3.5Vp-p (20msec./div.)
SUPPLY REEL PULSE
S. TAB REG +5V
QR6023
TO AUDIO LUMI/CHRO
S. TAB +5V
QR6024
REG
SAFETY TAB SW
SAFETY TAB
EVF 5V
SW1301
B1001
B6001
AGS SENSOR
OSC 12MHz
X6001
IC6001-38 STOP
2.6Vp-p (0.1μsec./div.)
IC6001-39 STOP
1.8Vp-p (0.1μsec./div.)
GND
IC6002 (AUTO DATE)
LITHIUM BATTERY
VDD
CL6216
OSC
X6002
CL6217
QR6012
CL6213
AUTO DATE SEL
AUTO DATE SET
SEL
SET
AUTO DATE CLK
AUTO DATE SW
32KHz
CLK
DATA
32KHz OUTPUT
OE
QR6007
INVERTER
P. ON
TO POWER
IC6003 (CHARACTER GENERATOR)
CL6007
NON REC DATA
P3003
P802
TO EVF
CG. AUTO DATE CLK
CG. STB
PCL (POWER ON CG RESET)
DATA OUT
STB
PCL (POWER. ON CLEAR)
N. RD BLK
NON REC. DATA. BLK
CL6212
REC DATA
IC3001-60
REC. DATA. BLK
IC3001-59
TO VIDEO
RD. BLK
HD
VTR HD
IC3002-6
FROM VIDEO
VD
VTR VD
IC3002-7
VTR VD
BATT
Q6006
NOREG
BATT REF
FROM IC1001-26
CAM. SW
IC6004
EXT DATA IN
FP3007
FP307
TO IC305-93
FM CS
FROM IC4501-20
SCK
FM CLOCK
TO IC4501-21
S-DATA OUT
V. DOWN
FM DATA
TO IC4501-22
FROM IC3002-7
VTR OPERATION
AGS
VTR LED
CAMERA LED
S-VHS/VHS
C. RESET
M/DISP
T45/30
SET
SHIFT
PLAY
REW
STOP
PAUSE
FF
CAM/VTR
FP6007
DELAY REC
PB
R ERASE ON
TO LUMI/CHRO CIRCUIT
EE
AUDIO MUTE
AUDIO FADE
TO AUDIO CIRCUIT
MODE SW
POS-COM
POS-1
POS-2
POS-3
IC6001-23 STOP
0.65Vp-p (2μsec./div.)
AUTO TRACKING GAIN CONTROL
CL6005
H. SW
HA. SW
HSS
ENVE. DET.
VIDEO CIRCUIT
AGS ON/OFF
QR6004
VTR LED
CAMERA LED
SCAN0
SCAN1
KEY IN0
KEY IN1
KEY IN2
KEY IN3
KEY IN4
KEY IN5
POWER
U. REG.
TRIWAVE
DRIVE CIRCUIT
IC2001
<SERVO REG. 5V>
QR2002
IC2001-53 REC
0.5Vp-p (1μsec.
TRIWAVE
CAP SW
CYLINDER DRIVE CLOCK
DRIVE CLOCK
FP6005
FP2003
CYLINDER ON
CL6207
CL6206
CL6210
CYLINDER FG
CYLINDER PG
CYLINDER TORQUE
FG
PG
CYLINDER EC
AMP
CL6209
CTL HEAD
FP4001
IC6001-85 REC
2.1Vp-p (10msec./div.)
<SERVO REG. 5V>
VCC
CAPSTAN R/S/F/C
CL6211
CAPSTAN TORQUE
TORQUE LIMIT
Q6201
VR1
VR0
REG 3. 6V
CAPSTAN R/S/F
CAPSTAN TORQUE
TORQUE LIMIT
QR6015
CAP SW
TO POWER
IC2001-58 RE
3.2Vp-p (0.5m
CL6208
CAPSTAN FG
FG

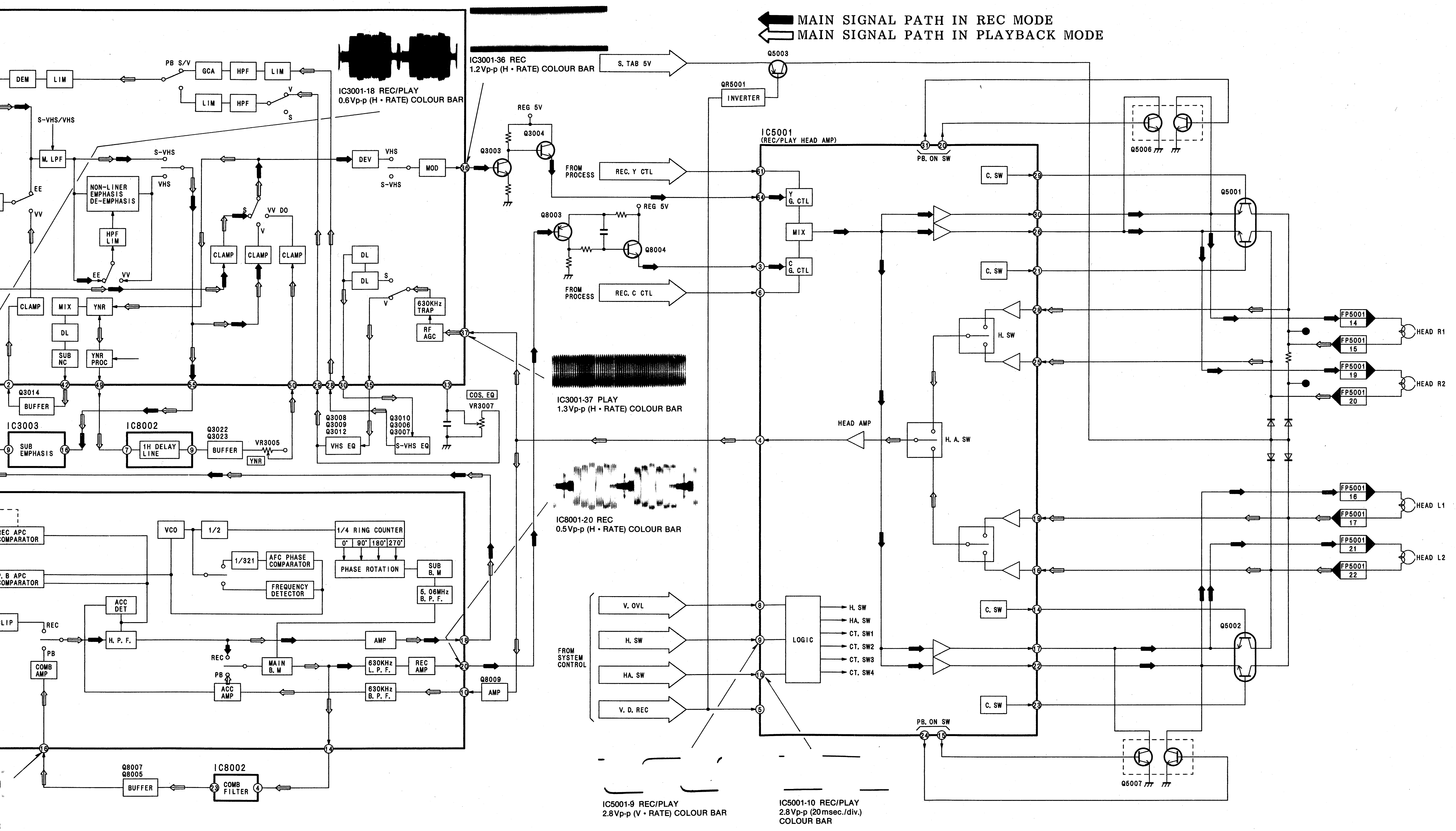

CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
POWER
U. REG.
TRIWAVE
DRIVE CIRCUIT
<SERVO REG. 5V>
QR2002
IC2001
IC2001-53 REC
0.5Vp-p (1μsec./div.)
TRIWAVE
CAP SW
AMP
TRASISTOR SATURATION DETECTOR
TO POWER
CYL VM
IC2002
CYLINDER DRIVE TR.
Y VM
ACTIVE COIL SWITCHING LOGIC
SLOPE ADDITION
DRIVE TRANSISTOR CONTROL
FG AMP COMPARATOR
PG AMP COMPARATOR
R2008 0.33
R2007 0.47
DD CYLINDER MOTOR
MAIN COIL 1
MAIN COIL 2
MAIN COIL 3
FG
PG
IC6002 (AUTO DATE)
VDD
SEL
SET
CLK
DATA
32KHz OUTPUT
OSC
GND
OE
CL6216
X6002
CL6217
QR6007
INVERTER
P. ON
TO POWER
IC6003 (CHARACTER GENERATOR)
NON REC DATA
TO EVF
N. RD BLK
NON REC. DATA. BLK
STB
PCL (POWER. ON CLEAR)
REC DATA
IC3001-60
TO VIDEO
RD. BLK
REC. DATA. BLK
IC3001-59
HD
VTR HD
IC3002-6
FROM VIDEO
VD
VTR VD
IC3002-7
NOREG
FROM IC1001-26
TO LUMI/CHRO CIRCUIT
DELAY REC
PB
R ERASE ON
TO AUDIO CIRCUIT
EE
AUDIO MUTE
AUDIO FADE
IC6001-23 STOP
0.65Vp-p (2μsec./div.)
MODE SW
POS-COM
POS-1
POS-2
POS-3
CYLINDER DRIVE CLOCK
CYLINDER ON
CYLINDER FG
CYLINDER PG
CYLINDER TORQUE
CL6207
CL6206
CL6210
DRIVE CLOCK
CYLINDER ON
CYLINDER EC
VIDEO CIRCUIT
CL6005
AUTO TRACKING GAIN CONTROL
H. SW
HA. SW
HSS
ENVE. DET.
AMP
CL6209
CTL HEAD
IC6001-85 REC
2.1Vp-p (10msec./div.)
VTR OPERATION
AGS
AGS ON/OFF
QR6004
VTR LED
CAMERA LED
SCAN0
SCAN1
S-VHS/VHS
C. RESET
M/DISP
T45/30
SET
SHIFT
PLAY
REW
STOP
PAUSE
FF
CAM/VTR
KEY IN0
KEY IN1
KEY IN2
KEY IN3
KEY IN4
KEY IN5
IC6004
TO IC305-93
FM CS
FROM IC4501-20
FM CLOCK
TO IC4501-21
FM DATA
TO IC4501-22
FROM IC3002-7
VCC
CAPSTAN R/S/F
CAPSTAN TORQUE
TORQUE LIMIT
VRI
VRO
REG 3.6V
Q6201
CL6211
CAP SW
QR6015
TO POWER
IC2001-58 REC
3.2Vp-p (0.5msec./div.)
CL6208
CAPSTAN FG
FG AMP COMP.
DIRECTION LOGIC
DIRECTION DETECTOR
DIRECTION SWITCHING
MATRIX
LIMITER
TRANSISTOR SATURATION DETECTOR
CAP VM
C VM
IC2003
CAPSTAN DRIVE TR.
R2013 0.33
DD CAPSTAN MOTOR
HALL IC1
HALL IC2
HALL IC3
5V
FP2001
FP2002
FP2003
FP6005
FP6001
FP6007
FP4001
FP3007
FP307

Next Page:
LUMI/CHRO & HA Section

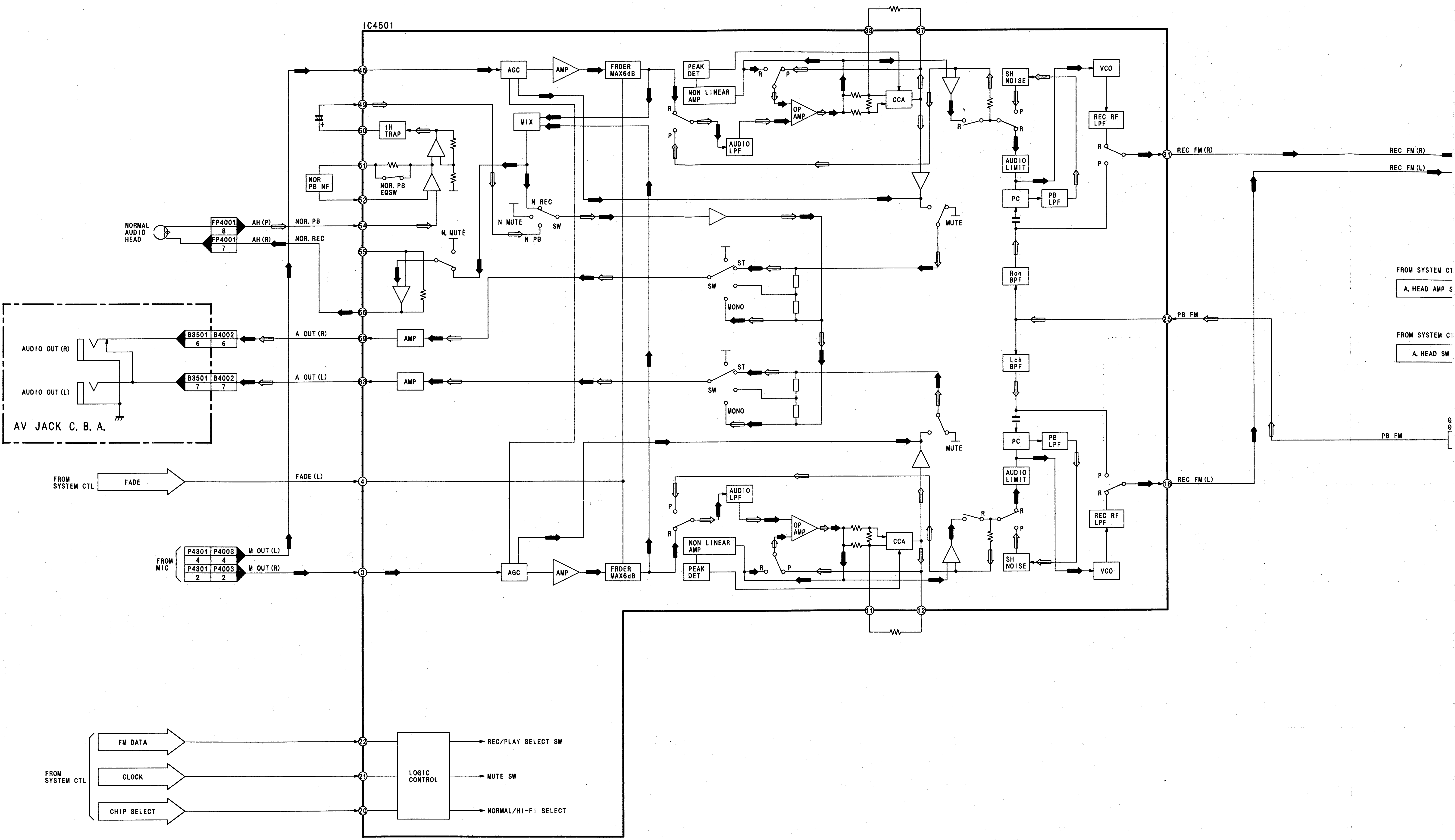
3-7. LUMINANCE/CHROMINANCE & HEAD AMP BLOCK DIAGRAM

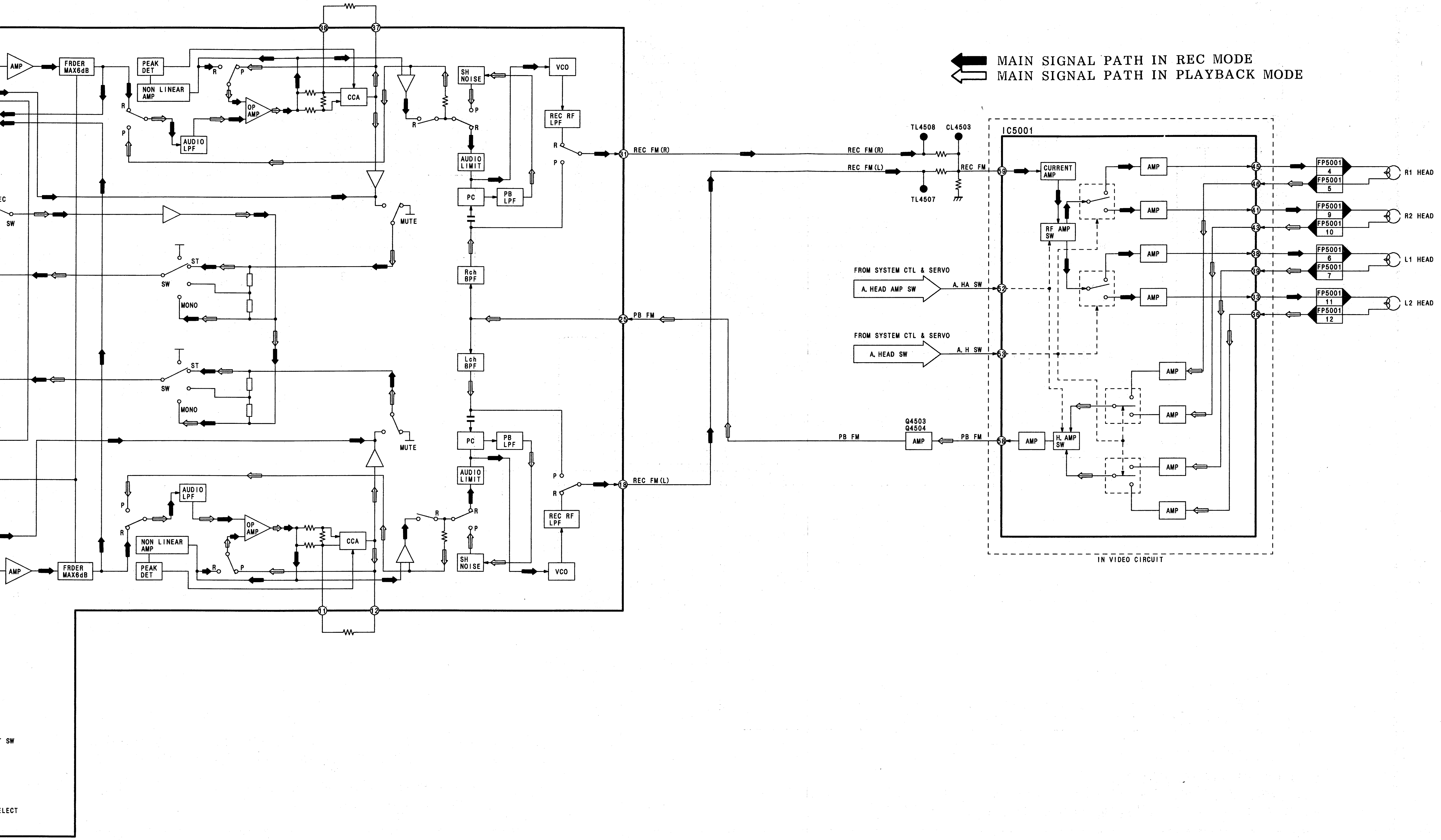

MAIN SIGNAL P
MAIN SIGNAL P
IC3001
(REC/PLAY VIDEO SIGNAL)
FROM SYSTEM CTL
SCR Ⓗ
QR3010
Y SIGNAL
REC DATA
BLK
TO SYSTEM CTL
EVF Y
Y OUT
FP6001 3
VIDEO OUT
B4002 2
COLOUR OUT
FP6001 1
FROM SYSTEM CTL
S-VHS Ⓛ
QR3009
INVERTER
S-VHS Ⓗ
IC3001-1 REC
1.0Vp-p (H • RATE) COLOUR BAR
IC3001-12 REC/PLAY
2.4Vp-p (H • RATE) COLOUR BAR
IC3001-13 REC/PLAY
2.6Vp-p (H • RATE) COLOUR BAR
IC3001-15 REC/PLAY
1.1Vp-p (H • RATE) COLOUR BAR
IC3001-18 REC/PLAY
0.6Vp-p (H • RATE) COLOUR BAR
IC3001-36 REC
1.2Vp-p (H • RATE) COLOUR BAR
IC3001-37 PLAY
1.3Vp-p (H • RATE) COLOUR BAR
MIX
CAM
LINE
AGC
EE
VV
EE (AGC OFF)
SUB LPF
DEM
LIM
SUB CLAMP
PB S/V
GCA
HPF
LIM
LIM
HPF
V
S
S-VHS/VHS
M. LPF
S-VHS
NON-LINER EMPHASIS DE-EMPHASIS
VHS
HPF LIM
EE
VV
DEV
VHS
S-VHS
MOD
CHR MIX1
SAG
ART VH
EE
CHR MIX2
SUB CLAMP
HSC TRAP
VV
S
VV DO
V
CLAMP
CLAMP
CLAMP
DL
DL
S
V
630KHz TRAP
RF AGC
CLAMP
MIX
YNR
DL
SUB NC
YNR PROC
Q3014
BUFFER
IC3003
SUB EMPHASIS
IC8002
1H DELAY LINE
Q3022
Q3023
BUFFER
VR3005
YNR
Q8001
BUFFER
Q3008
Q3009
Q3012
VHS EQ
Q3010
Q3006
Q3007
S-VHS EQ
COS. EQ
VR3007
S. TAB 5V
Q5003
QR5001
INVERTER
REG 5V
Q3004
Q3003
FROM PROCESS
REC. Y CTL
REG 5V
Q8003
Q8004
FROM PROCESS
REC. C CTL
IC5001
(REC/PLAY HEAD AMP)
Y G. CTL
MIX
C G. CTL
HEAD AMP
IC8001
(REC/PLAY CHROMINANCE SIGNAL)
X8001
X' TAL VCO
REC APC COMPARATOR
BURST
P. B APC COMPARATOR
VCO
1/2
1/4 RING COUNTER
0° 90° 180° 270°
1/321
AFC PHASE COMPARATOR
PHASE ROTATION
SUB B. M
FREQUENCY DETECTOR
5. 06MHz B. P. F.
IC8001-62 REC
0.5Vp-p (H • RATE) COLOUR BAR
FROM PROCESS
R-Y
FP3003 5
B-Y
FP3003 4
CLAMP
MODULATOR
MIX
LPF
CLIP
REC
CLAMP
MODULATOR
ACC DET
H. P. F.
AMP
PB
COMB AMP
REC
MAIN B. M
630KHz L. P. F.
REC AMP
PB
ACC AMP
630KHz B. P. F.
Q8009
AMP
IC8001-1 REC
0.6Vp-p (H • RATE) COLOUR BAR
Q8007
Q8005
BUFFER
IC8002
COMB FILTER
IC8001-16 PLAY
240mVp-p (H • RATE) COLOUR BAR
IC8001-20 REC
0.5Vp-p (H • RATE) COLOUR BAR
V. OVL
H. SW
HA. SW
V. D. REC
FROM SYSTEM CONTROL
LOGIC
H. SW
HA. SW
CT. SW1
CT. SW2
CT. SW3
CT. SW4
IC5001-9 REC/PLAY
2.8Vp-p (V • RATE) COLOUR BAR
IC5001-10 REC/PLAY
2.8Vp-p (20msec./div.)
COLOUR BAR

DIAGRAM


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
IC3001-18 REC/PLAY
0.6Vp-p (H • RATE) COLOUR BAR
IC3001-36 REC
1.2Vp-p (H • RATE) COLOUR BAR
IC3001-37 PLAY
1.3Vp-p (H • RATE) COLOUR BAR
IC8001-20 REC
0.5Vp-p (H • RATE) COLOUR BAR
IC5001-9 REC/PLAY
2.8Vp-p (V • RATE) COLOUR BAR
IC5001-10 REC/PLAY
2.8Vp-p (20msec./div.)
COLOUR BAR
DEM
LIM
PB S/V
GCA
HPF
S-VHS/VHS
M. LPF
S-VHS
VHS
NON-LINER EMPHASIS DE-EMPHASIS
HPF LIM
EE
VV
DEV
MOD
S-VHS
CLAMP
VV DO
DL
630KHz TRAP
RF AGC
MIX
YNR
SUB NC
YNR PROC
Q3014
BUFFER
IC3003
SUB EMPHASIS
IC8002
1H DELAY LINE
Q3022
Q3023
BUFFER
VR3005
YNR
Q3008
Q3009
Q3012
VHS EQ
Q3010
Q3006
Q3007
S-VHS EQ
COS. EQ
VR3007
REG 5V
Q3003
Q3004
Q8003
Q8004
FROM PROCESS
REC. Y CTL
REC. C CTL
S. TAB 5V
Q5003
QR5001
INVERTER
IC5001
(REC/PLAY HEAD AMP)
PB. ON SW
Y G. CTL
MIX
C G. CTL
C. SW
H. SW
HEAD AMP
H. A. SW
Q5006
Q5001
Q5002
Q5007
FP5001 14
FP5001 15
FP5001 19
FP5001 20
FP5001 16
FP5001 17
FP5001 21
FP5001 22
HEAD R1
HEAD R2
HEAD L1
HEAD L2
REC APC COMPARATOR
P. B APC COMPARATOR
VCO
1/2
1/4 RING COUNTER
0° 90° 180° 270°
1/321
AFC PHASE COMPARATOR
FREQUENCY DETECTOR
PHASE ROTATION
SUB B. M
5. 06MHz B. P. F.
ACC DET
LIP
REC
H. P. F.
AMP
MAIN B. M
630KHz L. P. F.
REC AMP
PB
COMB AMP
ACC AMP
630KHz B. P. F.
Q8009
AMP
Q8007
Q8005
BUFFER
IC8002
COMB FILTER
FROM SYSTEM CONTROL
V. OVL
H. SW
HA. SW
V. D. REC
LOGIC
H. SW
HA. SW
CT. SW1
CT. SW2
CT. SW3
CT. SW4

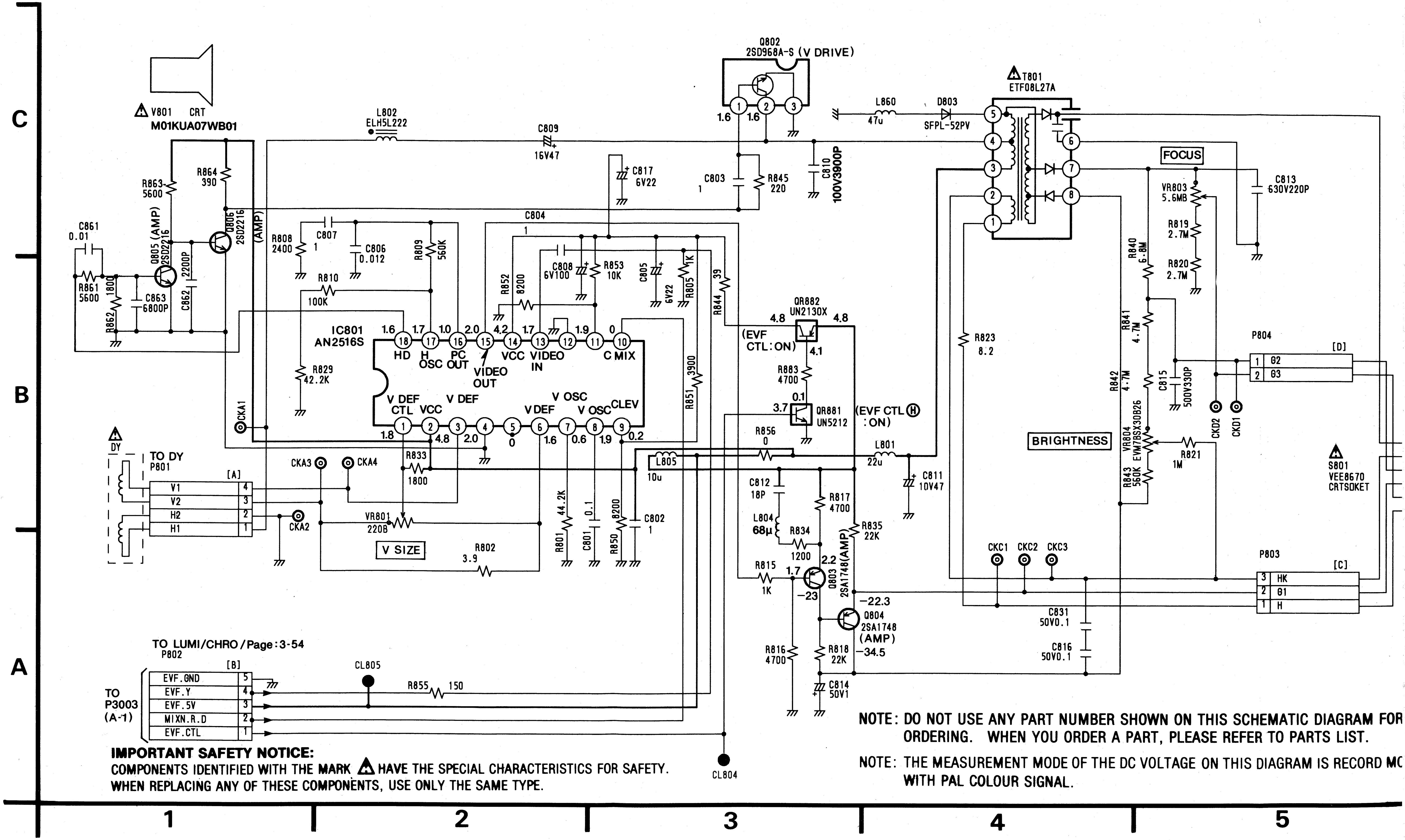
3-8. AUDIO BLOCK DIAGRAM


IC4501
AGC
AMP
FRDER MAX6dB
PEAK DET
NON LINEAR AMP
OP AMP
CCA
AUDIO LPF
SH NOISE
VCO
REC RF LPF
AUDIO LIMIT
PC
PB LPF
Rch BPF
Lch BPF
MIX
fH TRAP
NOR PB NF
NOR. PB EQSW
N REC
N MUTE
SW
N PB
N. MUTE
MUTE
ST
MONO
R
P
NORMAL AUDIO HEAD
FP4001 8
FP4001 7
AH (P)
AH (R)
NOR. PB
NOR. REC
AUDIO OUT (R)
AUDIO OUT (L)
AV JACK C. B. A.
B3501 6
B4002 6
B3501 7
B4002 7
A OUT (R)
A OUT (L)
FROM SYSTEM CTL
FADE
FADE (L)
FROM MIC
P4301 4
P4003 4
P4301 2
P4003 2
M OUT (L)
M OUT (R)
FM DATA
CLOCK
CHIP SELECT
LOGIC CONTROL
REC/PLAY SELECT SW
MUTE SW
NORMAL/HI-FI SELECT
REC FM (R)
REC FM (L)
PB FM
FROM SYSTEM CT
A. HEAD AMP S
A. HEAD SW
45
49
50
51
52
54
55
56
59
63
4
3
22
21
20
38
37
31
25
18
11
12


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
AMP
FRDER MAX6dB
PEAK DET
NON LINEAR AMP
OP AMP
CCA
AUDIO LPF
SH NOISE
VCO
REC RF LPF
AUDIO LIMIT
PC
PB LPF
Rch BPF
Lch BPF
MUTE
ST
SW
MONO
R
P
38
37
31
25
18
11
12
REC FM (R)
REC FM (L)
PB FM
TL4508
CL4503
TL4507
REC FM
IC5001
CURRENT AMP
RF AMP SW
H. AMP SW
FROM SYSTEM CTL & SERVO
A. HEAD AMP SW
A. HA SW
A. HEAD SW
A. H SW
Q4503
Q4504
59
52
53
58
45
46
41
43
38
39
33
36
FP5001 4
FP5001 5
FP5001 9
FP5001 10
FP5001 6
FP5001 7
FP5001 11
FP5001 12
R1 HEAD
R2 HEAD
L1 HEAD
L2 HEAD
IN VIDEO CIRCUIT
EC
SW
SW
LECT

Next Page:
EVF Section

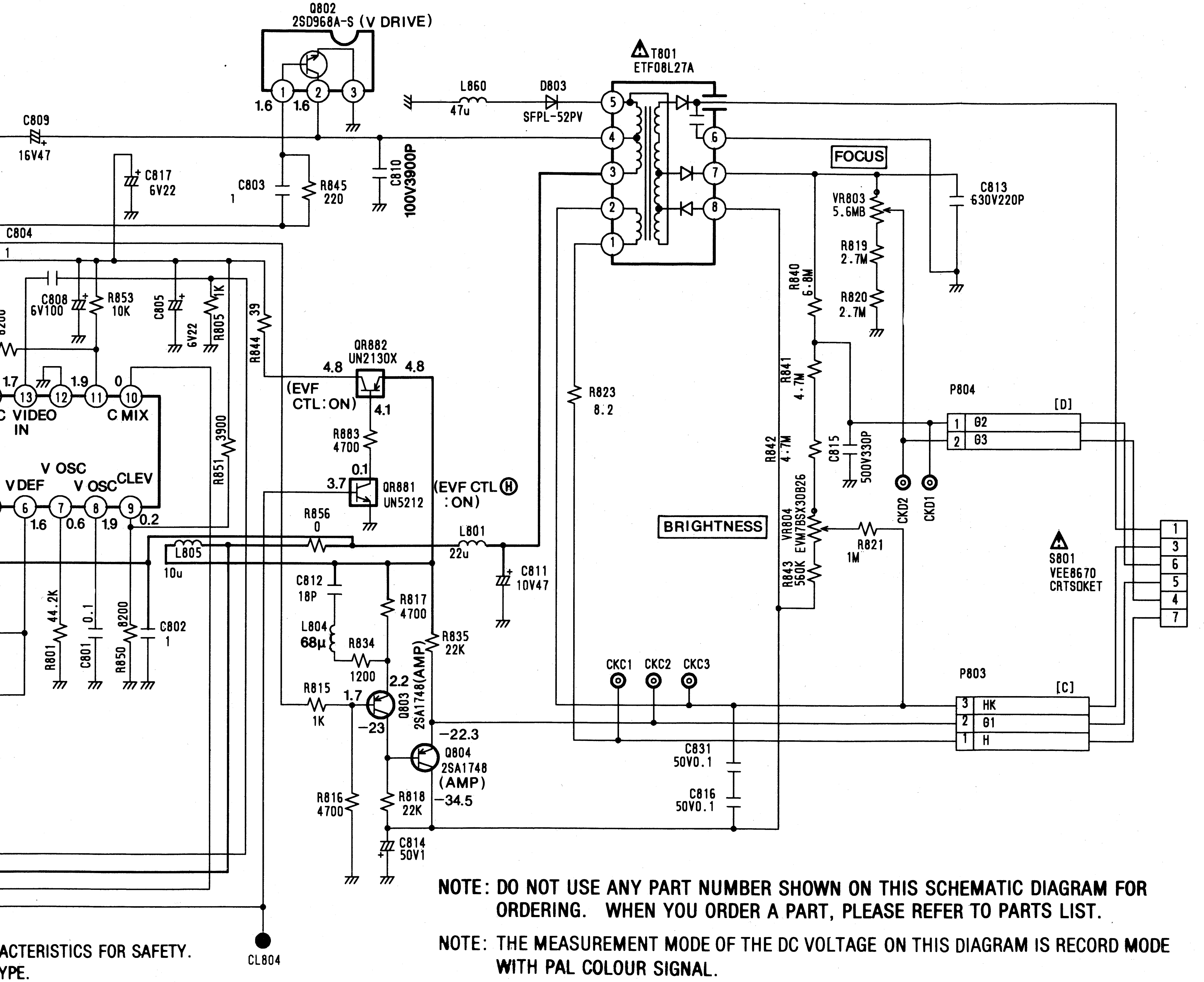
3-9. EVF SCHEMATIC DIAGRAM


C
B
A
1
2
3
4
5
⚠ V801 CRT
M01KUA07WB01
R863 5600
R864 390
Q805 (AMP) 2SD2216
Q806 2SD2216 (AMP)
C861 0.01
R861 5600
R862 1800
C863 6800P
C862 2200P
L802 ELH5L222
C809 16V47
C817 6V22
C807 1
C806 0.012
R808 2400
R809 560K
R810 100K
R829 42.2K
C804 1
R852 8200
C808 6V100
R853 10K
C805 6V22
R805 1K
R844 39
IC801 AN2516S
HD
H OSC
PC OUT
VIDEO OUT
VCC
VIDEO IN
C MIX
V DEF CTL
VCC
V DEF
V DEF
V OSC
V OSC
CLEV
R851 3900
CKA1
⚠ DY
TO DY P801
[A]
V1
V2
H2
H1
CKA2
CKA3
CKA4
R833 1800
VR801 220B
V SIZE
R802 3.9
R801 44.2K
C801 0.1
R850 8200
C802 1
L805 10u
Q802 2SD968A-S (V DRIVE)
C803 1
R845 220
C810 100V3900P
QR882 UN2130X
(EVF CTL:ON)
R883 4700
QR881 UN5212
(EVF CTL Ⓗ :ON)
R856 0
L801 22u
C811 10V47
C812 18P
L804 68μ
R834 1200
R817 4700
R835 22K
R815 1K
Q803 2SA1748(AMP)
Q804 2SA1748 (AMP)
R816 4700
R818 22K
C814 50V1
L860 47u
D803 SFPL-52PV
⚠T801 ETF08L27A
FOCUS
C813 630V220P
VR803 5.6MB
R819 2.7M
R820 2.7M
R840 6.8M
R841 4.7M
R842 4.7M
R823 8.2
C815 500V330P
BRIGHTNESS
VR804 EVM7BSX30B26
R843 560K
R821 1M
CKD2
CKD1
P804
[D]
G2
G3
⚠ S801 VEE8670 CRTSOKET
CKC1
CKC2
CKC3
P803
[C]
HK
G1
H
C831 50V0.1
C816 50V0.1
TO LUMI/CHRO/Page:3-54
P802
[B]
TO P3003 (A-1)
EVF.GND
EVF.Y
EVF.5V
MIXN.R.D
EVF.CTL
CL805
R855 150
CL804
1.6
1.6
4.8
4.8
4.1
0.1
3.7
2.2
1.7
-23
-22.3
-34.5
1.6
1.7
1.0
2.0
4.2
1.7
1.9
0
1.8
4.8
2.0
0
1.6
0.6
1.9
0.2

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS RECORD MC WITH PAL COLOUR SIGNAL.


Q802
2SD968A-S (V DRIVE)
T801
ETF08L27A
L860
47u
D803
SFPL-52PV
C809
16V47
C817
6V22
C803
1
R845
220
C810
100V3900P
C804
1
C808
6V100
R853
10K
C805
6V22
R805
1K
R844
39
QR882
UN2130X
4.8
(EVF CTL:ON)
4.1
R883
4700
0.1
3.7
QR881
UN5212
(EVF CTL H :ON)
R856
0
L801
22u
C811
10V47
L805
10u
C812
18P
L804
68μ
R834
1200
R817
4700
R835
22K
R815
1K
1.7
2.2
-23
Q803
2SA1748(AMP)
-22.3
Q804
2SA1748
(AMP)
-34.5
R816
4700
R818
22K
C814
50V1
C VIDEO IN
C MIX
V OSC
V DEF
V OSC
CLEV
R851
3900
R801
44.2K
C801
0.1
R850
8200
C802
1
R823
8.2
FOCUS
VR803
5.6MB
R819
2.7M
R820
2.7M
C813
630V220P
R840
6.8M
R841
4.7M
R842
4.7M
C815
500V330P
VR804
EVM7BSX30B26
R843
560K
R821
1M
BRIGHTNESS
CKD2
CKD1
P804
[D]
G2
G3
S801
VEE8670
CRTSOKET
CKC1
CKC2
CKC3
P803
[C]
HK
G1
H
C831
50V0.1
C816
50V0.1
CL804
3
4
5

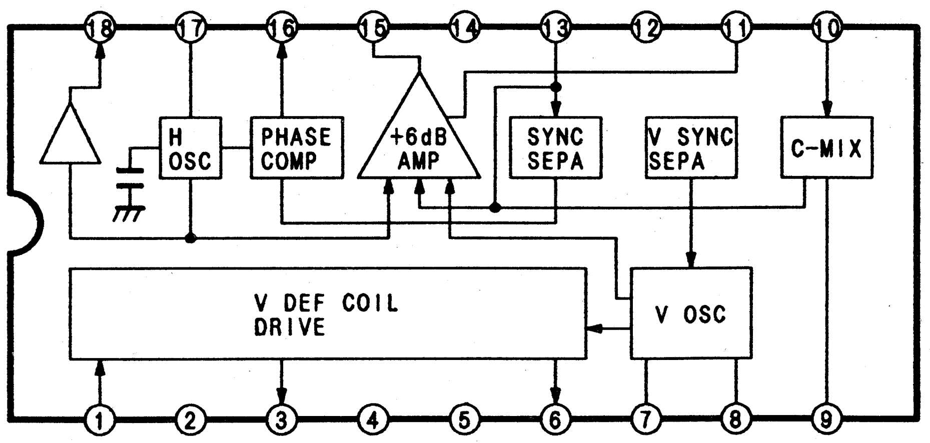
ACTERISTICS FOR SAFETY.
YPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

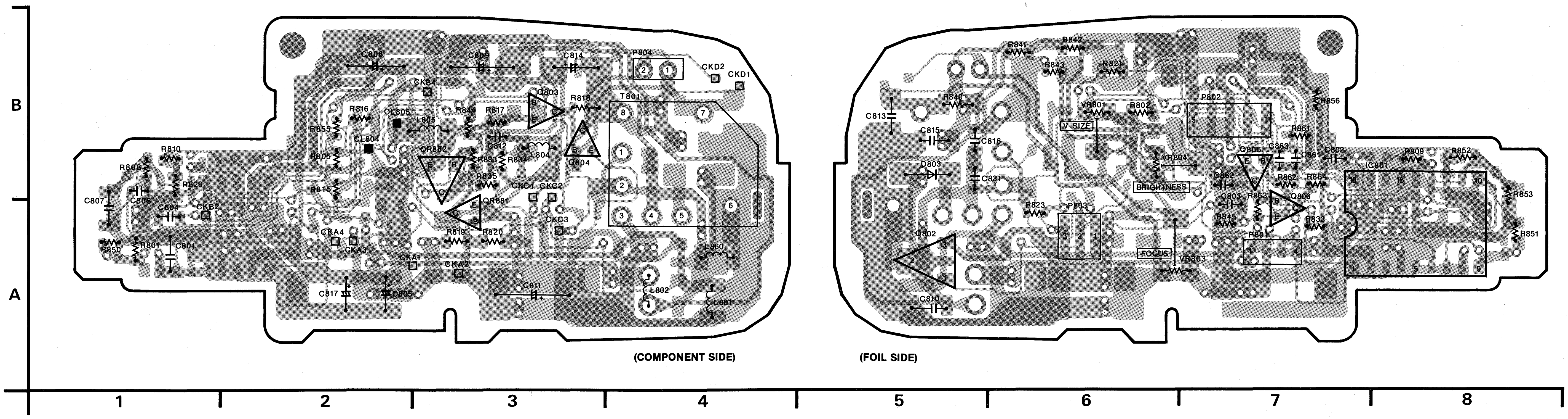
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL.

IC BLOCK

IC801 (AN2516S)


H OSC
PHASE COMP
+6dB AMP
SYNC SEPA
V SYNC SEPA
C-MIX
V DEF COIL DRIVE
V OSC

3-10. EVF C.B.A. (VEP28086A)


B
A
1
2
3
4
5
6
7
8
P804
T801
CKD1
CKD2
Q803
Q804
QR881
QR882
CL804
CL805
V SIZE
BRIGHTNESS
FOCUS
VR801
VR803
VR804
P801
P802
P803
Q802
Q805
Q806
IC801

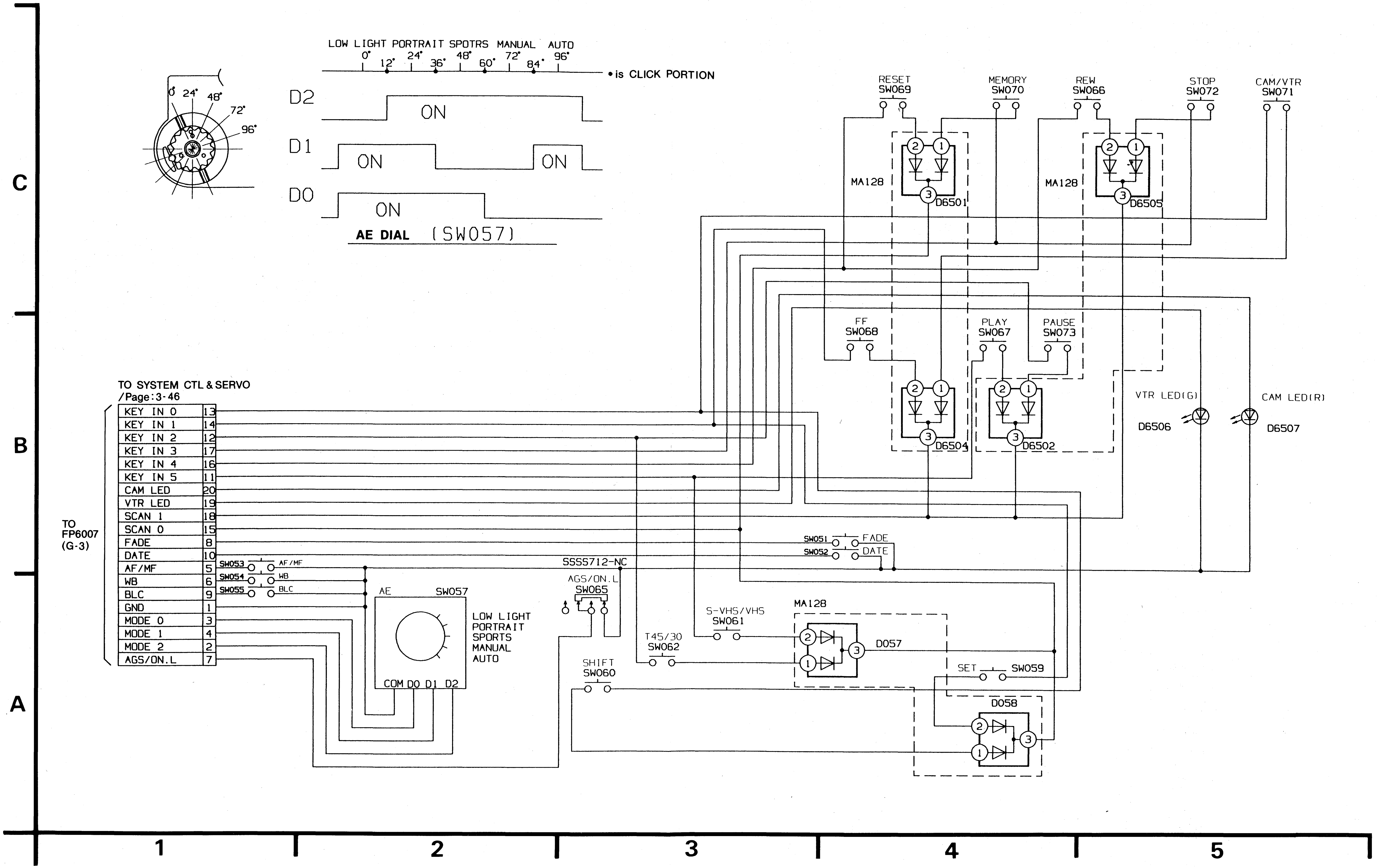
(COMPONENT SIDE)

(FOIL SIDE)

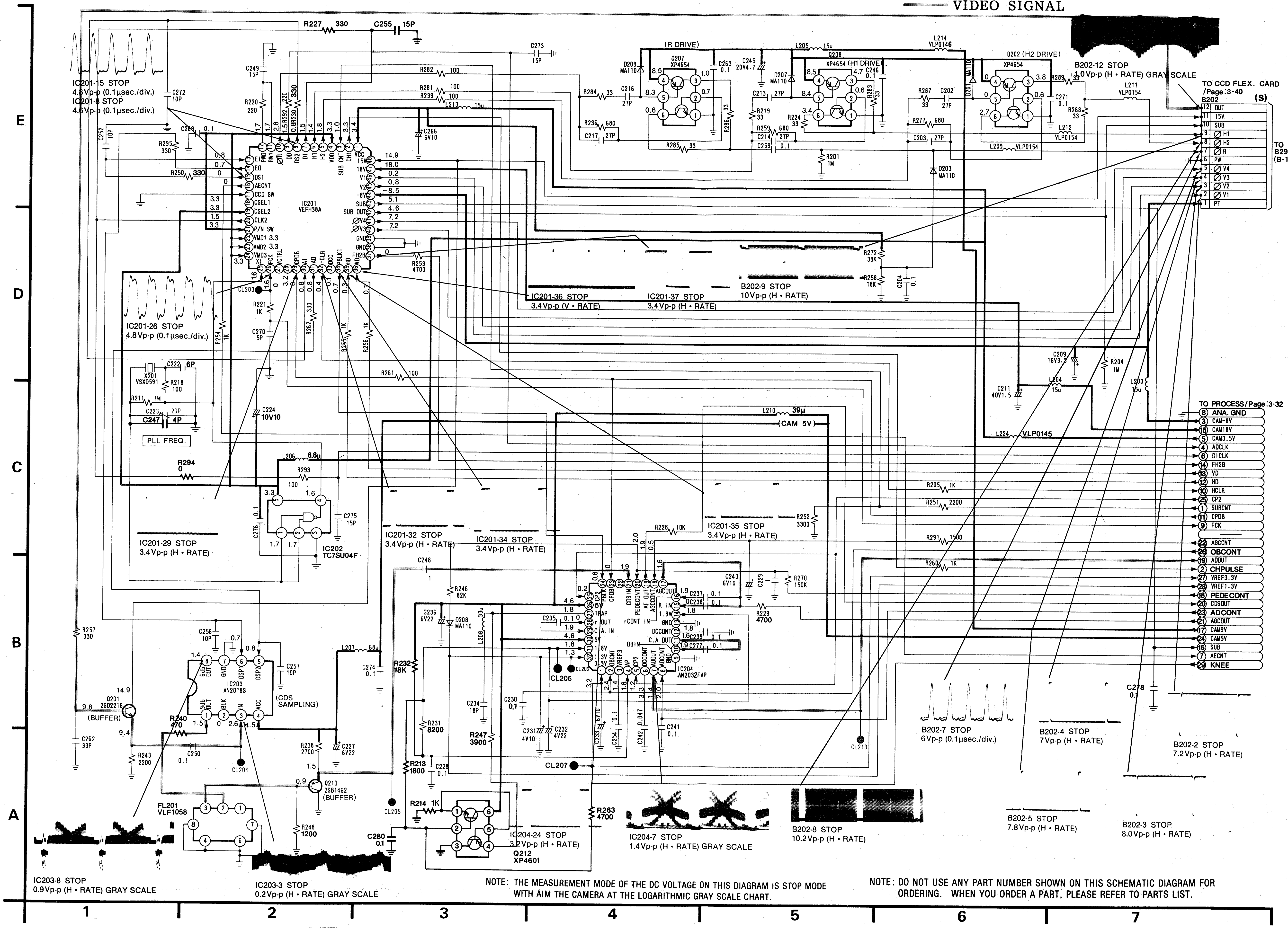
EVF C.B.A.	
Integrated Circuit	
IC801	B-8
Transistor	
Q802	A-5
Q803	B-3
Q804	B-3
Q805	B-7
Q806	A-7
Transistor & Resistor	
QR881	A-3
QR882	B-3
Test Point	
CL804	B-2
CL805	B-2
Adjustment	
VR801	B-6
VR803	A-6
VR804	B-6
Connector	
P801	A-7
P802	B-7
P803	A-6
P804	B-4

ADDRESS INFORMATION

3-11. OPERATION SCHEMATIC DIAGRAM


LOW LIGHT PORTRAIT SPOTRS MANUAL AUTO
0° 12° 24° 36° 48° 60° 72° 84° 96°
• is CLICK PORTION
D2
ON
D1
ON
ON
D0
ON
AE DIAL (SW057)
0° 24° 48° 72° 96°
RESET SW069
MEMORY SW070
REW SW066
STOP SW072
CAM/VTR SW071
MA128
D6501
MA128
D6505
FF SW068
PLAY SW067
PAUSE SW073
D6504
D6502
VTR LED(G)
D6506
CAM LED(R)
D6507
TO SYSTEM CTL & SERVO /Page:3-46
TO FP6007 (G-3)
KEY IN 0 13
KEY IN 1 14
KEY IN 2 12
KEY IN 3 17
KEY IN 4 16
KEY IN 5 11
CAM LED 20
VTR LED 19
SCAN 1 18
SCAN 0 15
FADE 8
DATE 10
AF/MF 5
WB 6
BLC 9
GND 1
MODE 0 3
MODE 1 4
MODE 2 2
AGS/ON.L 7
SW053 AF/MF
SW054 WB
SW055 BLC
AE SW057
LOW LIGHT
PORTRAIT
SPORTS
MANUAL
AUTO
COM D0 D1 D2
SSS5712-NC
AGS/ON.L SW065
SW051 FADE
SW052 DATE
S-VHS/VHS SW061
T45/30 SW062
SHIFT SW060
MA128
D057
SET SW059
D058
C
B
A
1
2
3
4
5

3-12. SENSOR SCHEMATIC DIAGRAM

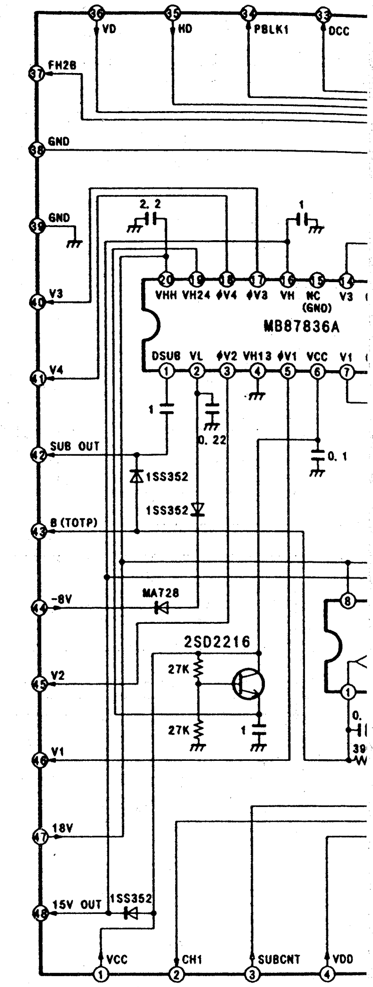

VIDEO SIGNAL
IC201-15 STOP
4.8Vp-p (0.1μsec./div.)
IC201-8 STOP
4.6Vp-p (0.1μsec./div.)
IC201 VEFH38A
(R DRIVE)
Q207 XP4654
Q208 XP4654 (H1 DRIVE)
Q202 (H2 DRIVE) XP4654
B202-12 STOP
1.0Vp-p (H • RATE) GRAY SCALE
TO CCD FLEX. CARD /Page:3-40
B202 (S)
OUT
15V
SUB
ØH1
ØH2
ØR
PW
ØV4
ØV3
ØV2
ØV1
PT
TO B291 (B-1)
B202-9 STOP
10Vp-p (H • RATE)
IC201-36 STOP
3.4Vp-p (V • RATE)
IC201-37 STOP
3.4Vp-p (H • RATE)
IC201-26 STOP
4.8Vp-p (0.1μsec./div.)
X201 VSX0591
PLL FREQ.
IC202 TC7SU04F
IC201-29 STOP
3.4Vp-p (H • RATE)
IC201-32 STOP
3.4Vp-p (H • RATE)
IC201-34 STOP
3.4Vp-p (H • RATE)
IC201-35 STOP
3.4Vp-p (H • RATE)
TO PROCESS/Page:3-32
ANA. GND
CAM-8V
CAM18V
CAM3.5V
ADCLK
DICLK
FH2B
VD
HD
HCLR
CP2
SUBCNT
CPOB
FCK
AGCCNT
OBCONT
ADOUT
CHPULSE
VREF3.3V
VREF1.3V
PEDECONT
CDSOUT
ADCONT
AGCOUT
CAM9V
CAM5V
SUB
AECNT
KNEE
(CAM 5V)
IC204 AN2032FAP
IC203 AN2018S
(CDS SAMPLING)
Q201 2SD2216 (BUFFER)
Q210 2SB1462 (BUFFER)
FL201 VLF1058
Q212 XP4601
B202-7 STOP
6Vp-p (0.1μsec./div.)
B202-4 STOP
7Vp-p (H • RATE)
B202-2 STOP
7.2Vp-p (H • RATE)
B202-8 STOP
10.2Vp-p (H • RATE)
B202-5 STOP
7.8Vp-p (H • RATE)
B202-3 STOP
8.0Vp-p (H • RATE)
IC204-24 STOP
3.2Vp-p (H • RATE)
IC204-7 STOP
1.4Vp-p (H • RATE) GRAY SCALE
IC203-8 STOP
0.9Vp-p (H • RATE) GRAY SCALE
IC203-3 STOP
0.2Vp-p (H • RATE) GRAY SCALE
A
B
C
D
E
1
2
3
4
5
6
7

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

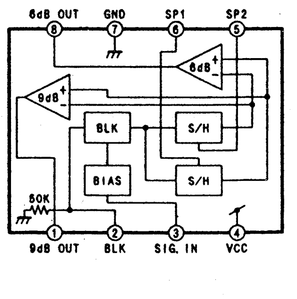
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

IC BLOCK

IC201 (VEFH38A)

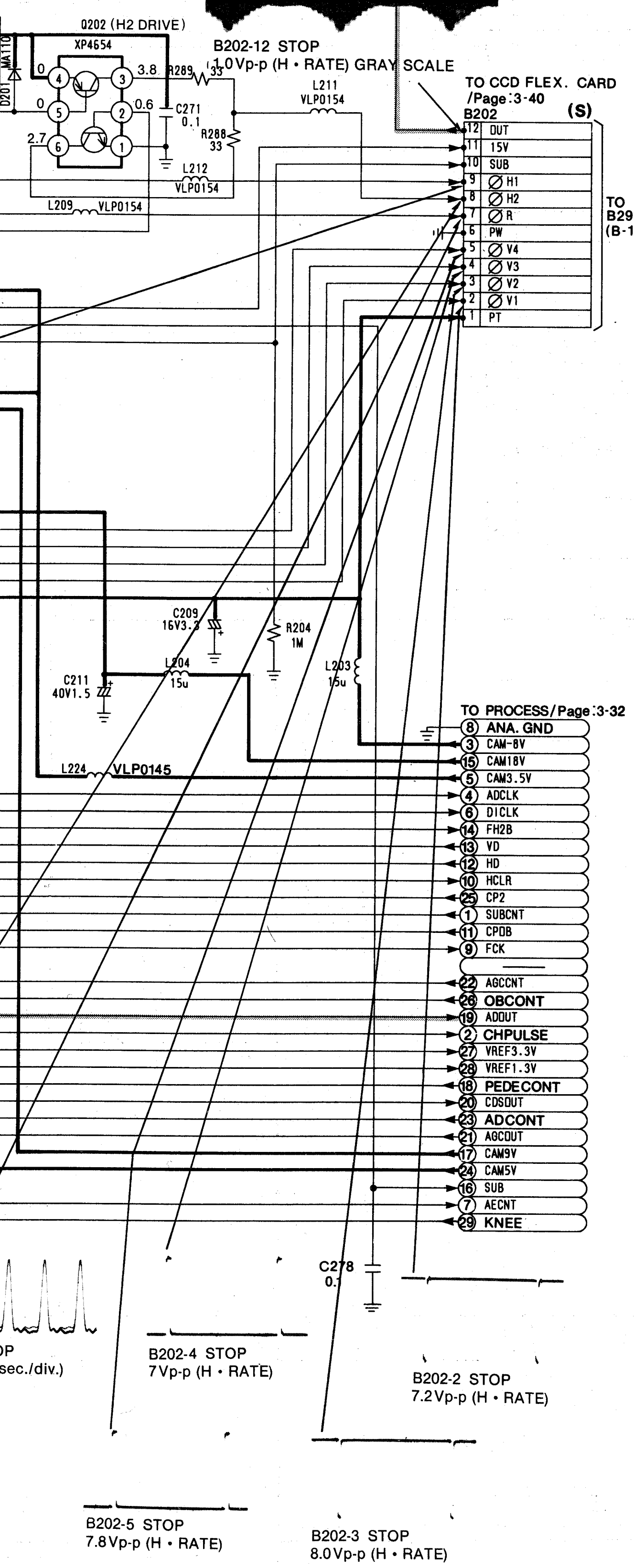

VD
HD
PBLK1
DCC
FH2B
GND
V3
V4
SUB OUT
8 (TOTP)
-8V
V2
V1
18V
15V OUT
VCC
CH1
SUBCNT
VDD
MB87836A
2SD2216
1SS352
MA728

IC203 (AN2018S)


6dB OUT
GND
SP1
SP2
9dB
6dB
BLK
S/H
BIAS
S/H
9dB OUT
BLK
SIG. IN
VCC

IDEO SIGNAL

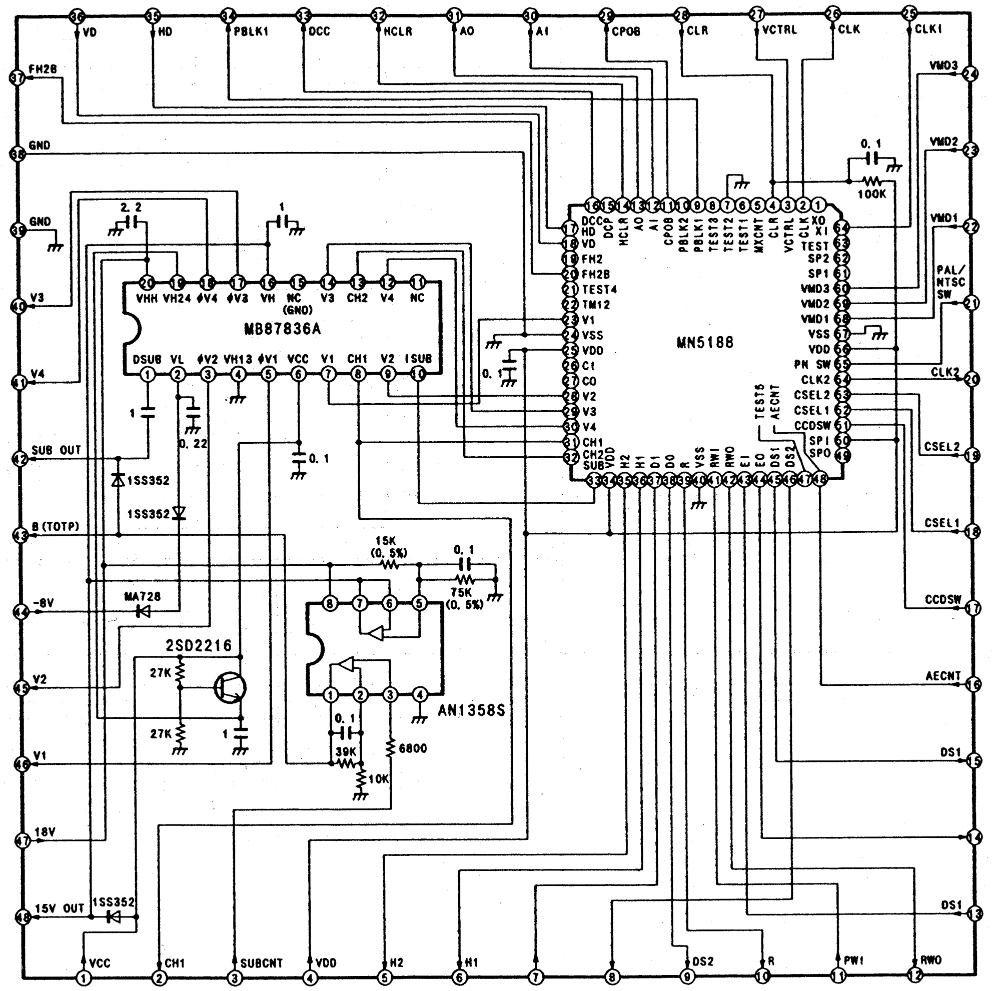
[redacted]


Q202 (H2 DRIVE)
XP4654
B202-12 STOP
1.0Vp-p (H • RATE) GRAY SCALE
TO CCD FLEX. CARD /Page:3-40
B202 (S)
OUT
15V
SUB
ØH1
ØH2
ØR
PW
ØV4
ØV3
ØV2
ØV1
PT
TO B291 (B-1)
R289 33
C271 0.1
R288 33
L211 VLP0154
L212 VLP0154
L209 VLP0154
C209 16V3.3
R204 1M
L204 15u
L203 15u
C211 40V1.5
L224 VLP0145
TO PROCESS/Page:3-32
ANA. GND
CAM-8V
CAM18V
CAM3.5V
ADCLK
DICLK
FH2B
VD
HD
HCLR
CP2
SUBCNT
CPDB
FCK
AGCCNT
OBCONT
ADOUT
CHPULSE
VREF3.3V
VREF1.3V
PEDECONT
CDSOUT
ADCONT
AGCOUT
CAM9V
CAM5V
SUB
AECNT
KNEE
C278 0.1
B202-4 STOP
7Vp-p (H • RATE)
B202-2 STOP
7.2Vp-p (H • RATE)
B202-5 STOP
7.8Vp-p (H • RATE)
B202-3 STOP
8.0Vp-p (H • RATE)
sec./div.)

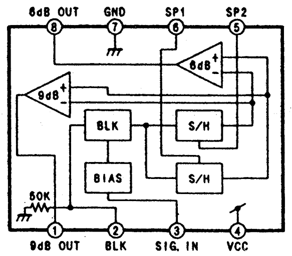
Y PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR
EN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

IC BLOCK

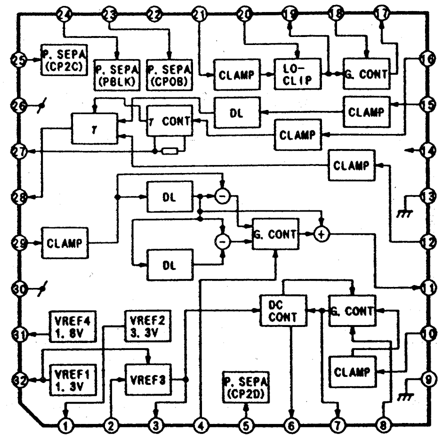
IC201 (VEFH38A)


VD
HD
PBLK1
DCC
HCLR
AO
AI
CPOB
CLR
VCTRL
CLK
CLKI
FH2B
GND
V3
V4
SUB OUT
B (TOTP)
-8V
V2
V1
18V
15V OUT
VMD3
VMD2
VMD1
PAL/NTSC SW
CLK2
CSEL2
CSEL1
CCDSW
AECNT
DS1
VCC
CH1
SUBCNT
VDD
H2
H1
DS2
R
PWI
RWO
MB87836A
MN5188
AN1358S
2SD2216
1SS352
MA728
100K
15K (0.5%)
75K (0.5%)
39K
10K
6800
27K

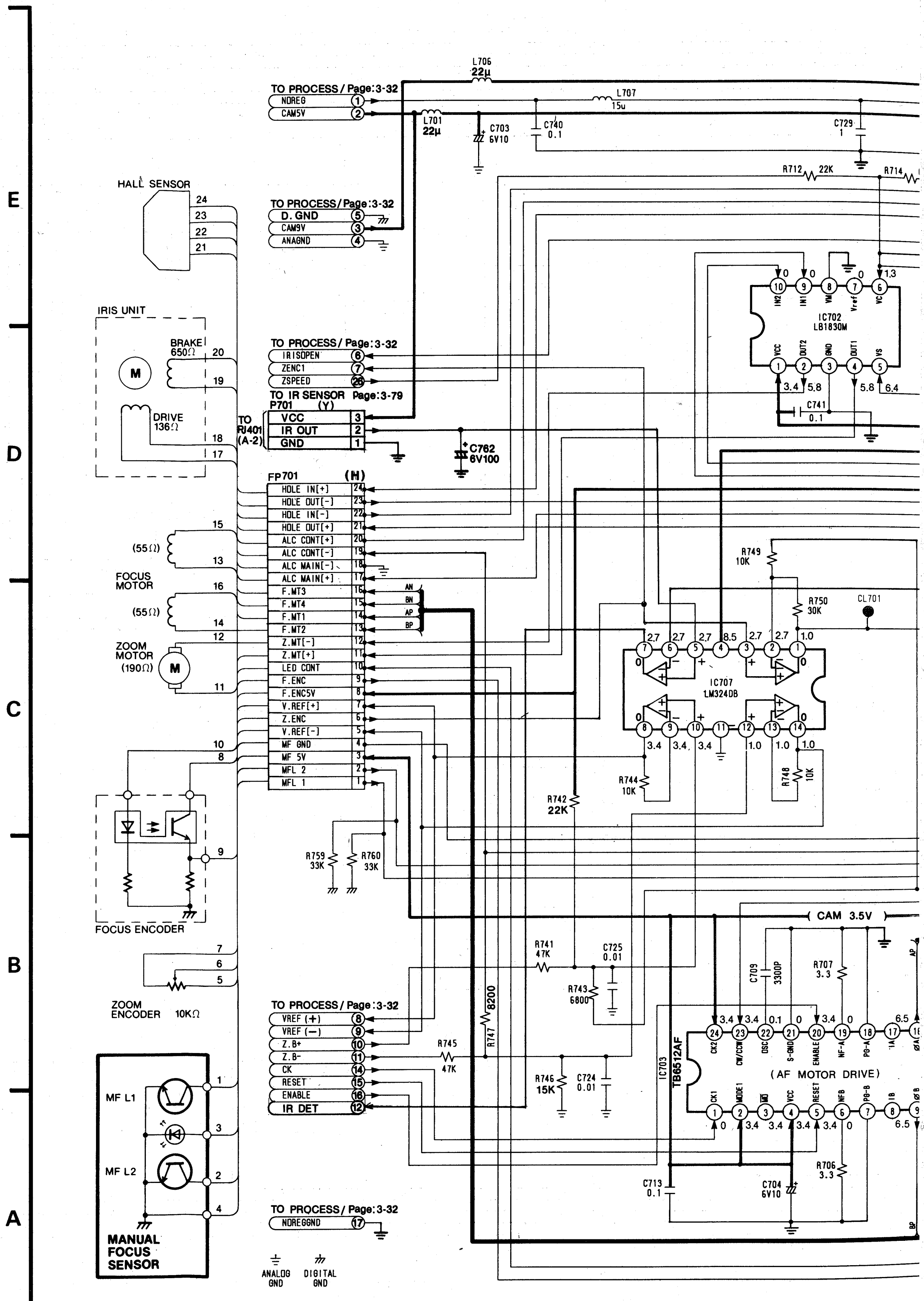
IC203 (AN2018S)


6dB OUT
GND
SP1
SP2
9dB
6dB
BLK
BIAS
S/H
50K
9dB OUT
BLK
SIG. IN
VCC

IC204 (AN2032FAP)

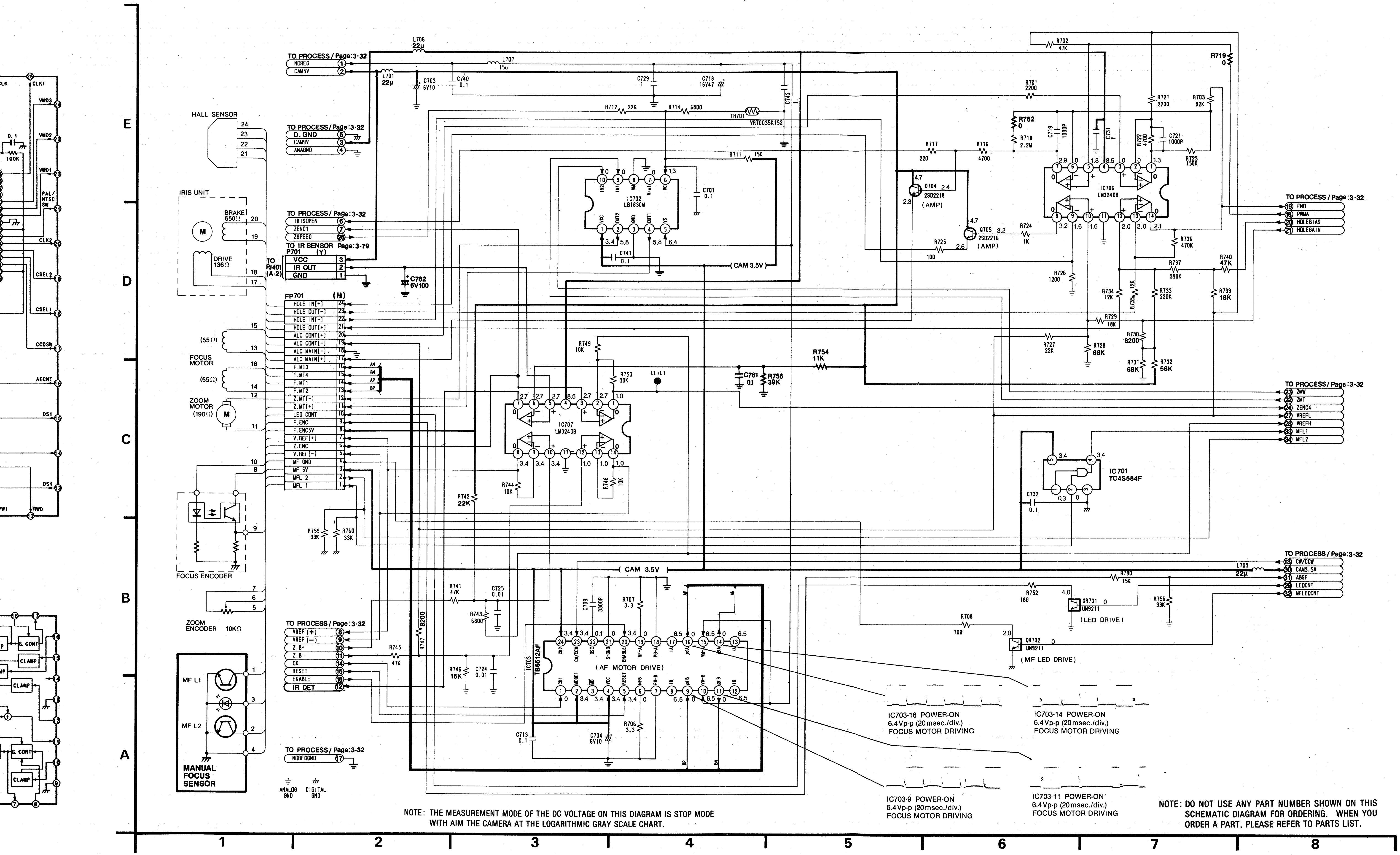

P. SEPA (CP2C)
P. SEPA (PBLK)
P. SEPA (CPOB)
CLAMP
LO-CLIP
G. CONT
DL
CONT
DC CONT
VREF4 1.8V
VREF2 3.3V
VREF1 1.3V
VREF3
P. SEPA (CP2D)

3-13. LENS DRIVE SCHEMATIC DIAGRAM


E
D
C
B
A
L706 22μ
L707 15u
L701 22μ
C703 6V10
C740 0.1
C729 1
R712 22K
R714
TO PROCESS/Page:3-32
NDREG
CAM5V
HALL SENSOR
D. GND
CAM9V
ANAGND
IC702 LB1830M
IRIS UNIT
BRAKE 650Ω
DRIVE 136Ω
IRISOPEN
ZENC1
ZSPEED
TO IR SENSOR Page:3-79
P701 (Y)
TO R/401 (A-2)
VCC
IR OUT
GND
C741 0.1
C762 6V100
FP701 (H)
HOLE IN(+)
HOLE OUT(-)
HOLE IN(-)
HOLE OUT(+)
ALC CONT(+)
ALC CONT(-)
ALC MAIN(-)
ALC MAIN(+)
F.MT3
F.MT4
F.MT1
F.MT2
Z.MT(-)
Z.MT(+)
LED CONT
F.ENC
F.ENC5V
V.REF(+)
Z.ENC
V.REF(-)
MF GND
MF 5V
MFL 2
MFL 1
(55Ω)
FOCUS MOTOR
ZOOM MOTOR (190Ω)
R749 10K
R750 30K
CL701
IC707 LM3240B
R744 10K
R748 10K
R742 22K
FOCUS ENCODER
R759 33K
R760 33K
CAM 3.5V
ZOOM ENCODER 10KΩ
R741 47K
C725 0.01
C709 3300P
R707 3.3
R743 6800
R747 8200
VREF (+)
VREF (-)
Z.B+
Z.B-
CK
RESET
ENABLE
IR DET
R745 47K
R746 15K
C724 0.01
IC703 TB6512AF
(AF MOTOR DRIVE)
MF L1
MF L2
MANUAL FOCUS SENSOR
C713 0.1
C704 6V10
R706 3.3
NDREGGND
ANALOG GND
DIGITAL GND

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STO
WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

3-13. LENS DRIVE SCHEMATIC DIAGRAM

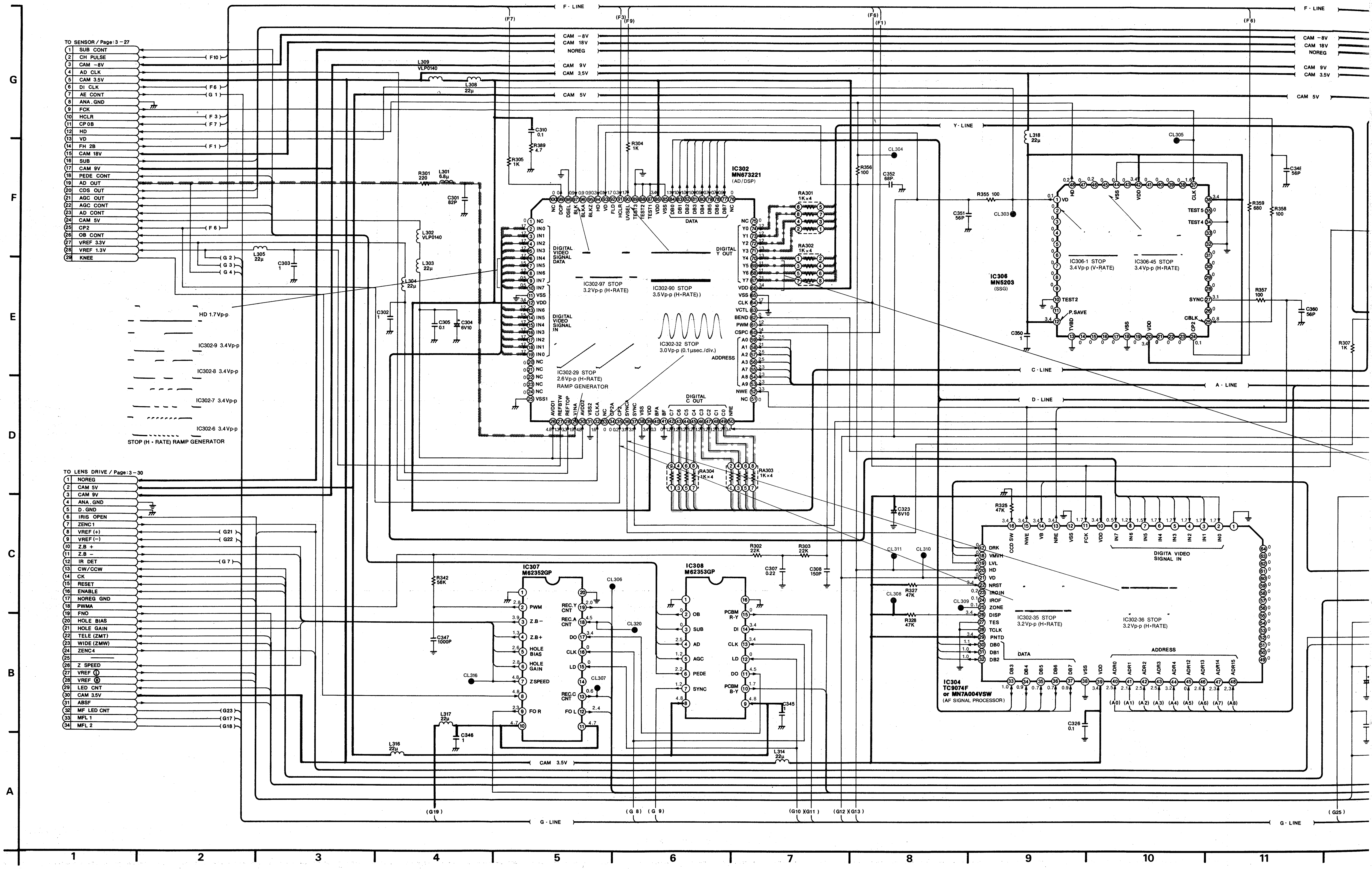


TO PROCESS / Page:3-32
NDREG
CAM5V
D. GND
CAM9V
ANAGND
IRISOPEN
ZENC1
ZSPEED
TO IR SENSOR Page:3-79
P701 (Y)
VCC
IR OUT
GND
TO RI401 (A-2)
HALL SENSOR
IRIS UNIT
BRAKE 650Ω
DRIVE 136Ω
FOCUS MOTOR
ZOOM MOTOR (190Ω)
FOCUS ENCODER
ZOOM ENCODER 10KΩ
MANUAL FOCUS SENSOR
MF L1
MF L2
FP701 (H)
HOLE IN(+)
HOLE OUT(-)
HOLE IN(-)
HOLE OUT(+)
ALC CONT(+)
ALC CONT(-)
ALC MAIN(-)
ALC MAIN(+)
F.MT3
F.MT4
F.MT1
F.MT2
Z.MT(-)
Z.MT(+)
LED CONT
F.ENC
F.ENC5V
V.REF(+)
Z.ENC
V.REF(-)
MF GND
MF 5V
MFL 2
MFL 1
VREF (+)
VREF (-)
Z.B+
Z.B-
CK
RESET
ENABLE
IR DET
NOREGGND
IC702 LB1830M
IC707 LM324DB
IC706 LM324DB
IC701 TC4S584F
IC703 TB6512AF (AF MOTOR DRIVE)
Q704 2SD2216 (AMP)
Q705 2SD2216 (AMP)
QR701 UN9211 (LED DRIVE)
QR702 UN9211 (MF LED DRIVE)
TH701 VRT0035K152
CAM 3.5V
FNO
PWMA
HOLEBIAS
HOLEGAIN
ZMW
ZMT
ZENC4
VREFL
VREFH
MFL1
MFL2
CW/CCW
CAM3.5V
ABSF
LEDCNT
MFLEDCNT
ANALOG GND
DIGITAL GND
IC703-16 POWER-ON 6.4Vp-p (20msec./div.) FOCUS MOTOR DRIVING
IC703-14 POWER-ON 6.4Vp-p (20msec./div.) FOCUS MOTOR DRIVING
IC703-9 POWER-ON 6.4Vp-p (20msec./div.) FOCUS MOTOR DRIVING
IC703-11 POWER-ON 6.4Vp-p (20msec./div.) FOCUS MOTOR DRIVING
E
D
C
B
A
1
2
3
4
5
6
7
8

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

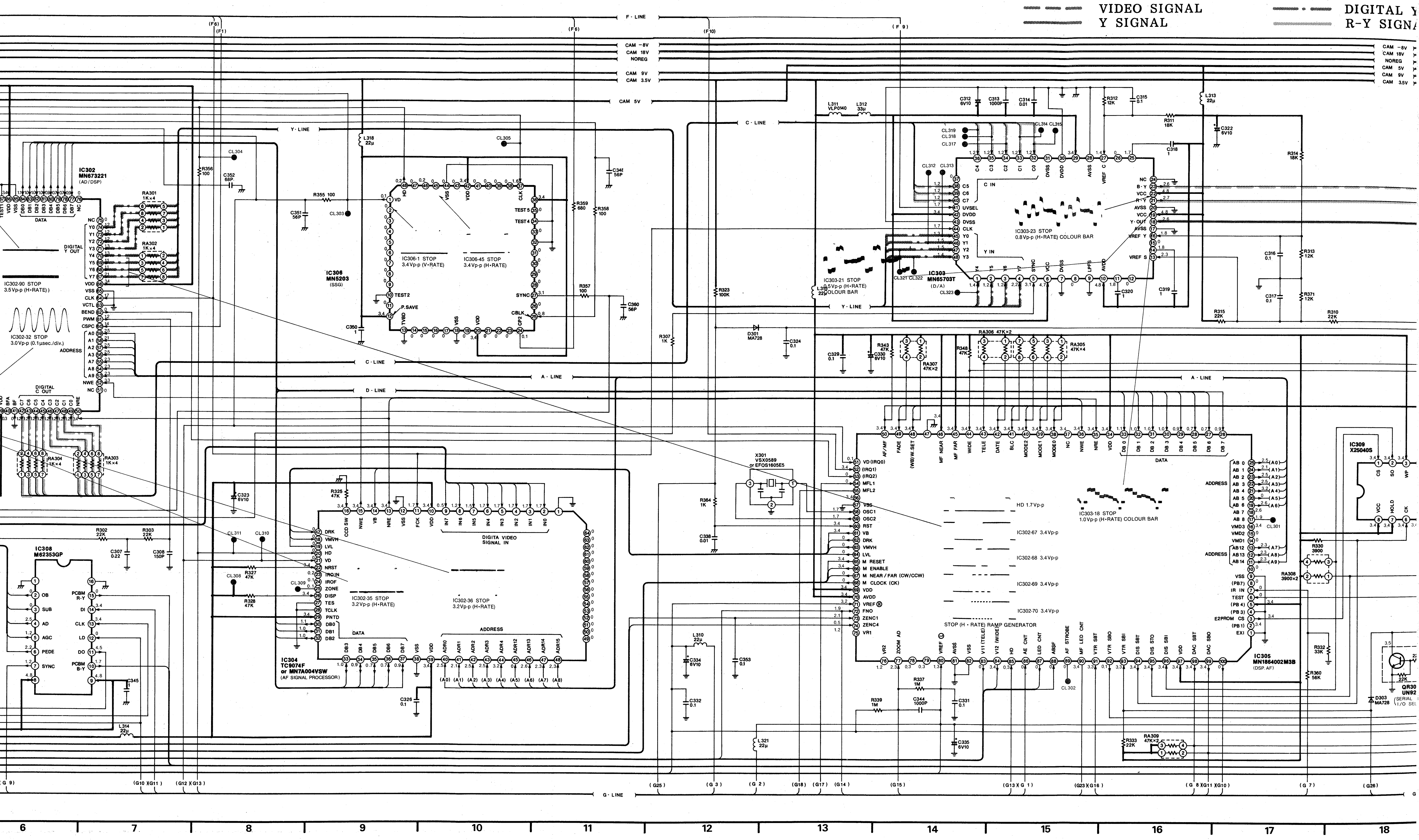
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-14. PROCESS SCHEMATIC DIAGRAM


TO SENSOR / Page: 3-27
1 SUB CONT
2 CH PULSE
3 CAM -8V
4 AD CLK
5 CAM 3.5V
6 DI CLK
7 AE CONT
8 ANA. GND
9 FCK
10 HCLR
11 CP0B
12 HD
13 VD
14 FH 2B
15 CAM 18V
16 SUB
17 CAM 9V
18 PEDE CONT
19 AD OUT
20 CDS OUT
21 AGC OUT
22 AGC CONT
23 AD CONT
24 CAM 5V
25 CP2
26 OB CONT
27 VREF 3.3V
28 VREF 1.3V
29 KNEE
TO LENS DRIVE / Page: 3-30
1 NOREG
2 CAM 5V
3 CAM 9V
4 ANA. GND
5 D. GND
6 IRIS OPEN
7 ZENC1
8 VREF (+)
9 VREF (-)
10 Z.B +
11 Z.B -
12 IR DET
13 CW/CCW
14 CK
15 RESET
16 ENABLE
17 NOREG GND
18 PWMA
19 FNO
20 HOLE BIAS
21 HOLE GAIN
22 TELE (ZMT)
23 WIDE (ZMW)
24 ZENC4
25
26 Z SPEED
27 VREF Ⓛ
28 VREF Ⓗ
29 LED CNT
30 CAM 3.5V
31 ABSF
32 MF LED CNT
33 MFL 1
34 MFL 2
F · LINE
CAM -8V
CAM 18V
NOREG
CAM 9V
CAM 3.5V
CAM 5V
Y · LINE
C · LINE
A · LINE
D · LINE
G · LINE
IC302
MN673221
(AD/DSP)
IC302-97 STOP
3.2Vp-p (H·RATE)
IC302-90 STOP
3.5Vp-p (H·RATE)
IC302-32 STOP
3.0Vp-p (0.1μsec./div.)
IC302-29 STOP
2.6Vp-p (H·RATE)
RAMP GENERATOR
HD 1.7Vp-p
IC302-9 3.4Vp-p
IC302-8 3.4Vp-p
IC302-7 3.4Vp-p
IC302-6 3.4Vp-p
STOP (H·RATE) RAMP GENERATOR
DIGITAL VIDEO SIGNAL DATA
DIGITAL VIDEO SIGNAL IN
DIGITAL Y OUT
DIGITAL C OUT
DATA
ADDRESS
IC306
MN5203
(SSG)
IC306-1 STOP
3.4Vp-p (V·RATE)
IC306-45 STOP
3.4Vp-p (H·RATE)
IC307
M62352GP
IC308
M62353GP
IC304
TC9074F
or MN7A004VSW
(AF SIGNAL PROCESSOR)
DIGITA VIDEO SIGNAL IN
IC302-35 STOP
3.2Vp-p (H·RATE)
IC302-36 STOP
3.2Vp-p (H·RATE)
RA301 1K×4
RA302 1K×4
RA303 1K×4
RA304 1K×4
L309 VLP0140
L308 22μ
L301 6.8μ
L302 VLP0140
L303 22μ
L304 22μ
L305 22μ
L316 22μ
L317 22μ
L314 22μ
L318 22μ
R301 220
R304 1K
R305 1K
R389 4.7
R342 56K
R302 22K
R303 22K
R325 47K
R327 47K
R328 47K
R355 100
R356 100
R357 100
R358 100
R359 680
R307 1K
C310 0.1
C301 82P
C302 1
C303 1
C304 6V10
C305 0.1
C307 0.22
C308 150P
C323 6V10
C326 0.1
C345 1
C346 1
C347 1000P
C348 56P
C350 1
C351 56P
C352 68P
C360 56P
CL304
CL305
CL303
CL306
CL307
CL308
CL309
CL310
CL311
CL316
CL320
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

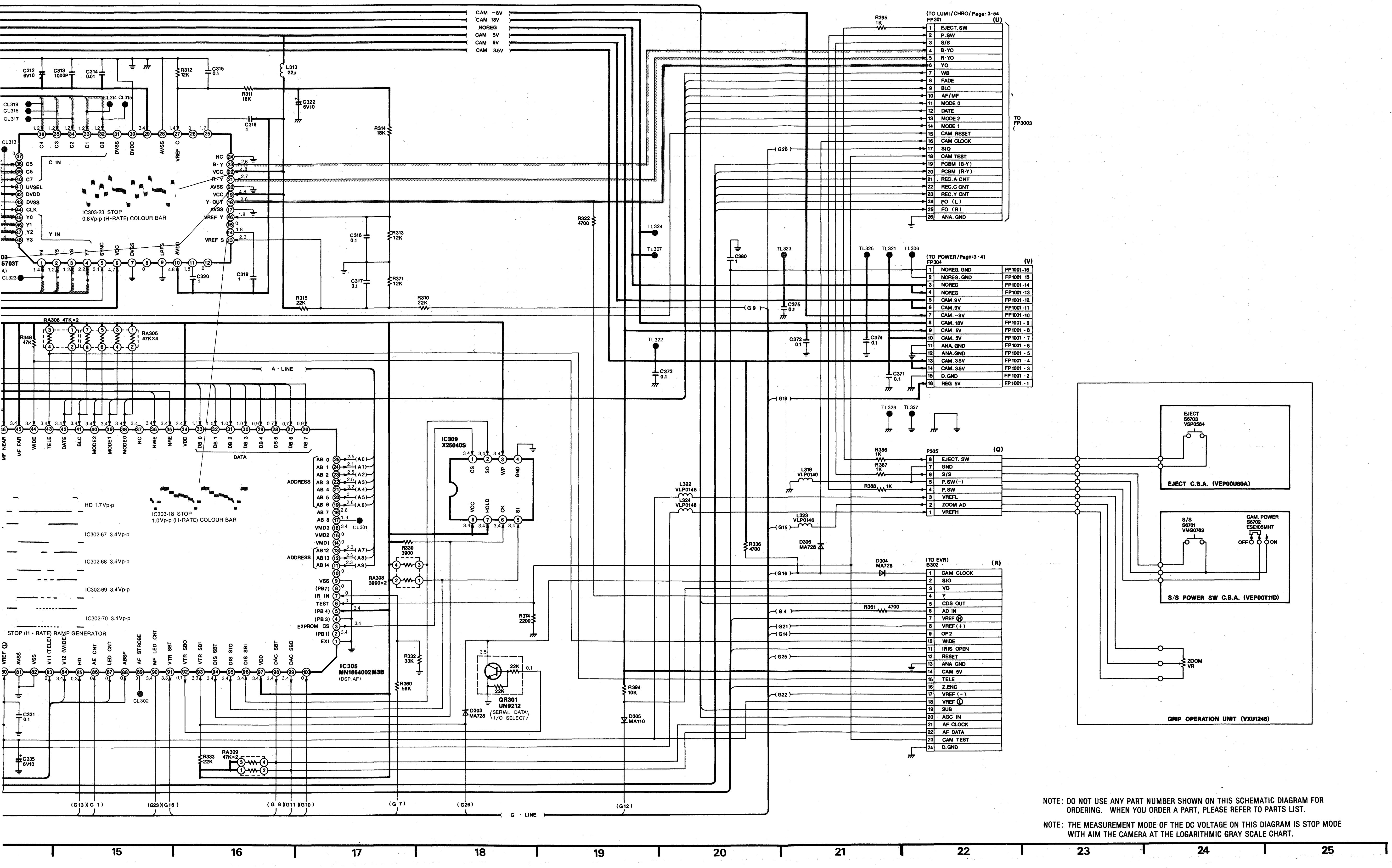
Back Page:
SENSOR, LENS DRIVE Section

PROCESS Section


VIDEO SIGNAL
Y SIGNAL
DIGITAL Y
R-Y SIGNA
F · LINE
CAM -8V
CAM 18V
NOREG
CAM 9V
CAM 3.5V
CAM 5V
Y · LINE
C · LINE
A · LINE
D · LINE
G · LINE
IC302
MN673221
(AD/DSP)
DIGITAL Y OUT
DIGITAL C OUT
DATA
ADDRESS
IC302-90 STOP 3.5Vp-p (H·RATE)
IC302-32 STOP 3.0Vp-p (0.1μsec./div.)
RA301 1K×4
RA302 1K×4
RA303 1K×4
RA304 1K×4
IC306
MN5203
(SSG)
IC306-1 STOP 3.4Vp-p (V·RATE)
IC306-45 STOP 3.4Vp-p (H·RATE)
IC303
MN65703T
(D/A)
IC303-21 STOP 0.5Vp-p (H·RATE) COLOUR BAR
IC303-23 STOP 0.8Vp-p (H·RATE) COLOUR BAR
IC303-18 STOP 1.0Vp-p (H·RATE) COLOUR BAR
C IN
Y IN
X301
VSX0589
or EFOS1605E5
D301 MA728
IC304
TC9074F
or MN7A004VSW
(AF SIGNAL PROCESSOR)
DIGITA VIDEO SIGNAL IN
IC302-35 STOP 3.2Vp-p (H·RATE)
IC302-36 STOP 3.2Vp-p (H·RATE)
IC308
M62353GP
IC305
MN1864002M3B
(DSP. AF)
HD 1.7Vp-p
IC302-67 3.4Vp-p
IC302-68 3.4Vp-p
IC302-69 3.4Vp-p
IC302-70 3.4Vp-p
STOP (H · RATE) RAMP GENERATOR
IC309
X25040S
QR30
UN92
D303 MA728
(SERIAL I/O SEL
RA305 47K×4
RA306 47K×2
RA307 47K×2
RA308 3900×2
RA309 47K×2
6
7
8
9
10
11
12
13
14
15
16
17
18

DRIVE Section

VIDEO SIGNAL
Y SIGNAL
DIGITAL Y SIGNAL
R-Y SIGNAL
DIGITAL C SIGNAL
B-Y SIGNAL


CAM -8V
CAM 18V
NOREG
CAM 5V
CAM 9V
CAM 3.5V
C312 6V10
C313 1000P
C314 0.01
R312 12K
C315 0.1
L313 22µ
R311 18K
C322 6V10
C318 1
R314 18K
CL319
CL318
CL317
CL314 CL315
CL313
C IN
Y IN
IC303-23 STOP
0.8Vp-p (H-RATE) COLOUR BAR
NC
B-Y
VCC
R-Y
AVSS
VCC
Y-OUT
AVSS
VREF Y
VREF S
C316 0.1
R313 12K
C317 0.1
R371 12K
C320 1
C319 1
R315 22K
R310 22K
R322 4700
RA306 47K×2
RA305 47K×4
R348 47K
A-LINE
MF NEAR
MF FAR
WIDE
TELE
DATE
BLC
MODE2
MODE1
MODE0
NC
NWE
NRE
VDD
DB 0
DB 1
DB 2
DB 3
DB 4
DB 5
DB 6
DB 7
DATA
ADDRESS
AB 0
AB 1
AB 2
AB 3
AB 4
AB 5
AB 6
AB 7
AB 8
VMD3
VMD2
VMD1
AB12
AB13
AB14
CL301
VSS
(PB7)
IR IN
TEST
(PB 4)
(PB 3)
E2PROM CS
(PB 1)
EXI
IC305
MN1864002M3B
(DSP. AF)
IC309
X25040S
CS
SO
WP
GND
VCC
HOLD
CK
SI
R330 3900
RA308 3900×2
R332 33K
R360 56K
R374 2200
QR301
UN9212
(SERIAL DATA)
(I/O SELECT)
D303 MA728
22K
HD 1.7Vp-p
IC303-18 STOP
1.0Vp-p (H-RATE) COLOUR BAR
IC302-67 3.4Vp-p
IC302-68 3.4Vp-p
IC302-69 3.4Vp-p
IC302-70 3.4Vp-p
STOP (H-RATE) RAMP GENERATOR
VREF Ⓛ
AVSS
VSS
V11 (TELE)
V12 (WIDE)
HD
AE CNT
LED CNT
ABSF
AF STROBE
MF LED CNT
VTR SBT
VTR SBO
VTR SBI
DIS SBT
DIS STO
DIS SBI
VDD
DAC SBT
DAC SBO
CL302
C331 0.1
C335 6V10
R333 22K
RA309 47K×2
(G13)(G 1)
(G23)(G16)
(G 8)(G11)(G10)
(G 7)
(G26)
G-LINE
(G12)
R394 10K
D305 MA110
TL324
TL307
TL322
C373 0.1
C380 1
TL323
C375 0.1
C372 0.1
(G26)
(G 9)
(G19)
(G15)
(G16)
(G 4)
(G21)
(G14)
(G25)
(G22)
R336 4700
L322 VLP0146
L324 VLP0146
L323 VLP0146
L319 VLP0140
D306 MA728
D304 MA728
R361 4700
TL325
TL321
TL306
C374 0.1
C371 0.1
TL326
TL327
R395 1K
(TO LUMI/CHRO/ Page:3-54
FP301 (U)
1 EJECT.SW
2 P.SW
3 S/S
4 B-YO
5 R-YO
6 YO
7 WB
8 FADE
9 BLC
10 AF/MF
11 MODE 0
12 DATE
13 MODE 2
14 MODE 1
15 CAM RESET
16 CAM CLOCK
17 SIO
18 CAM TEST
19 PCBM (B-Y)
20 PCBM (R-Y)
21 REC.A CNT
22 REC.C CNT
23 REC.Y CNT
24 FO (L)
25 FO (R)
26 ANA. GND
TO FP3003
(TO POWER/Page:3-41
FP304 (V)
1 NOREG. GND FP1001-16
2 NOREG. GND FP1001 15
3 NOREG FP1001-14
4 NOREG FP1001-13
5 CAM.9V FP1001-12
6 CAM.9V FP1001-11
7 CAM.−8V FP1001-10
8 CAM.18V FP1001-9
9 CAM. 5V FP1001-8
10 CAM. 5V FP1001-7
11 ANA. GND FP1001-6
12 ANA. GND FP1001-5
13 CAM. 3.5V FP1001-4
14 CAM. 3.5V FP1001-3
15 D.GND FP1001-2
16 REG 5V FP1001-1
R386 1K
R387 1K
R388 1K
P305 (Q)
8 EJECT. SW
7 GND
6 S/S
5 P.SW(−)
4 P.SW
3 VREFL
2 ZOOM AD
1 VREFH
(TO EVR)
B302 (R)
1 CAM CLOCK
2 SIO
3 VD
4 Y
5 CDS OUT
6 AD IN
7 VREF Ⓗ
8 VREF (+)
9 OP2
10 WIDE
11 IRIS OPEN
12 RESET
13 ANA GND
14 CAM 5V
15 TELE
16 Z.ENC
17 VREF (−)
18 VREF Ⓛ
19 SUB
20 AGC IN
21 AF CLOCK
22 AF DATA
23 CAM TEST
24 D.GND
EJECT
S6703
VSP0584
EJECT C.B.A. (VEP00U80A)
S/S
S6701
VMG0763
CAM. POWER
S6702
ESE105MH7
OFF
ON
S/S POWER SW C.B.A. (VEP00T11D)
ZOOM VR
GRIP OPERATION UNIT (VXU1246)
15
16
17
18
19
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23
24
25

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

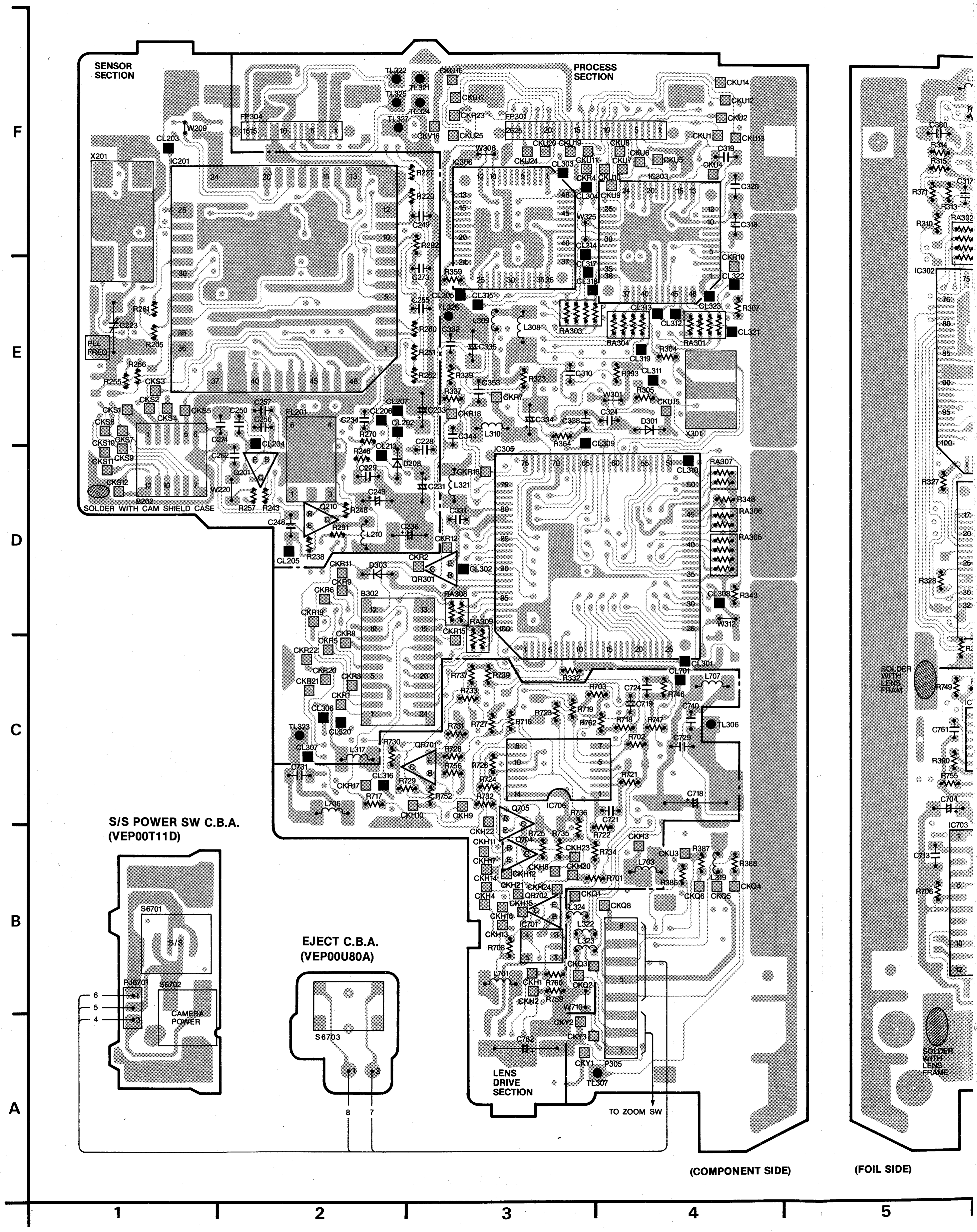
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

CAMERA MAIN C.B.A.

Integrated Circuit	
IC201	F-2
IC202	E-8
IC203	D-8
IC204	D-7
IC302	E-6
IC303	F-4
IC304	D-6
IC305	D-3
IC306	F-3
IC307	C-7
IC308	D-7
IC309	D-7
IC701	B-3
IC702	C-6
IC703	B-6
IC706	C-3
IC707	C-6
Transistor	
Q201	D-2
Q202	E-8
Q207	E-8
Q208	E-7
Q210	D-2
Q212	E-7
Q704	B-3
Q705	C-3
Transistor & Resistor	
QR301	D-3
QR701	C-3
QR702	B-3
Diode	
D201	E-8
D203	E-8
D207	F-7
D208	D-2
D209	E-8
D301	E-4
D303	D-2
D304	C-7
D305	F-6
D306	D-7
Test Point	
CL202	E-2
CL203	F-1
CL204	E-2
CL205	D-2
CL206	E-2
CL207	E-2
CL213	D-2
CL301	C-4
CL303	F-3
CL304	F-3
CL305	E-3
CL306	C-2
CL307	C-2
CL308	D-4
CL309	E-4
CL310	D-4
CL311	E-4
CL312	E-4
CL313	E-4
CL314	F-3
CL315	E-3
CL316	C-2
CL317	E-3
CL318	E-3
CL319	E-4
CL320	C-2
CL321	E-4
CL322	E-4
CL701	C-4
TL306	C-4
TL307	A-4
TL321	F-3
TL322	F-2
TL323	C-2
TL324	F-3
TL325	F-2
TL326	E-3
TL327	F-2
Adjustment	
C223	E-1
Thermistor	
TH701	C-6
Connector	
B202	D-1
B302	D-2
FP301	F-3
FP304	F-2
FP701	B-6
P305	B-4
P701	A-6
Crystal Oscillator	
X201	F-1
Filter	
FL201	E-2
Coil	
L203	F-7
L204	F-7
L205	F-7
L206	F-8
L207	E-8
L208	E-7
L209	E-8
L210	D-2
L211	E-7
L212	E-7
L213	F-8
L214	F-7
L224	F-8
L301	E-6
L302	F-6
L303	F-6
L304	F-7
L305	D-7
L308	E-3
L309	E-3
L310	E-3
L311	F-6
L312	F-6
L313	F-6
L314	D-6
L315	D-6
L316	C-7
L317	C-2
L318	F-7
L319	B-4
L321	D-3
L322	B-3
L323	B-3
L324	B-3
L701	B-3
L703	B-4
L706	C-2
L707	C-4
Capacitor	
C202	F-8
C203	F-8
C204	E-8
C209	F-7
C211	F-7
C213	E-7
C214	E-7
C216	E-8
C217	E-8
C222	E-8
C224	E-8
C227	E-8
C228	D-3
C229	D-2
C230	D-7
C231	D-3
C232	E-7
C233	E-3
C234	E-2
C235	E-7
C236	D-3
C237	D-7
C238	D-7
C239	D-7
C241	D-7
C242	D-7
C243	D-2
C245	F-7
C246	E-7
C247	E-8
C248	D-2
C249	F-3
C250	E-2
C252	F-7
C254	E-7
C255	E-3
C256	E-2
C257	E-2
C259	E-8
C262	D-2
C263	E-8
C266	F-8
C269	E-8
C270	F-8
C271	E-8
C272	F-7
C273	E-3
C274	E-2
C275	F-8
C276	E-8
C277	D-7
C278	E-8
C280	E-7
C301	E-7
C302	E-7
C303	E-7
C304	E-7
C305	E-7
C307	E-6
C308	F-6
C310	E-3
C312	F-6
C313	F-6
C314	F-6
C315	F-6
C316	F-6
C317	F-5
C318	F-4
C319	F-4
C320	F-4
C322	F-6
C323	C-6
C324	E-4
C326	C-6
C329	D-6
C330	D-6
C331	D-3
C332	E-3
C334	E-3
C335	E-3
C338	E-3
C344	E-3
C345	C-7
C346	C-7
C347	C-7
C348	F-7
C350	F-6
C351	F-7
C352	F-6
C353	E-3
C360	F-7
C371	F-8
C372	F-8
C373	F-8
C374	F-7
C375	F-7
C380	F-5
C701	C-6
C703	C-6
C704	C-5
C709	B-6
C713	B-5
C718	C-4
C719	C-4
C721	C-4
C724	C-4
C725	C-6
C729	C-4
C731	C-2
C732	A-6
C740	C-4
C741	C-7
C742	C-6
C761	C-5
C762	A-3
Resistor	
R201	E-8
R204	E-8
R205	E-1
R211	E-8
R213	E-7
R214	E-7
R218	E-8
R219	E-7
R220	F-3
R221	F-8
R224	E-7
R227	F-3
R228	E-7
R229	D-7
R230	F-7
R231	E-7
R232	E-7
R236	E-8
R238	D-2
R239	F-8
R240	D-8
R243	D-2
R246	D-2
R247	E-7
R248	D-2
R250	F-7
R251	E-3
R252	E-3
R253	E-8
R254	F-8
R255	E-1
R256	E-1
R257	D-2
R258	E-8
R259	E-7
R260	E-3
R261	E-1
R262	E-8
R263	E-7
R270	E-2
R272	E-8
R277	F-8
R281	E-7
R282	E-8
R283	E-7
R284	E-8
R285	E-8
R286	E-8
R287	F-8
R288	E-8
R289	E-8
R291	D-2
R292	F-3
R293	F-8
R294	F-8
R295	F-7
R301	D-6
R302	F-6
R303	E-6
R304	E-4
R305	E-4
R307	E-4
R310	F-5
R311	F-6
R312	F-6
R313	F-5
R314	F-5
R315	F-5
R322	F-6
R323	E-3
R325	C-5
R327	D-5
R328	D-5
R330	D-7
R332	C-3
R333	D-7
R336	D-7
R337	E-3
R339	E-3
R342	C-6
R343	D-4
R348	D-4
R355	F-6
R356	F-6
R357	E-7
R358	E-7
R359	E-3
R360	C-5
R361	D-7
R364	E-3
R371	F-5
R374	F-7
R386	B-4
R387	B-4
R388	B-4
R393	E-4
R394	F-6
R395	F-6
R701	B-3
R702	C-4
R703	C-4
R706	B-5
R707	B-6
R708	B-3
R711	C-7
R712	C-7
R714	C-6
R716	C-3
R717	C-2
R718	C-4
R719	C-3
R721	C-4
R722	B-4
R723	C-3
R724	C-3
R725	B-3
R726	C-3
R727	C-3
R728	C-3
R729	C-2
R730	C-2
R731	C-3
R732	C-3
R733	C-3
R734	B-3
R735	B-3
R736	B-3
R737	C-3
R739	C-3
R740	C-7
R741	C-6
R742	C-6
R743	C-6
R744	C-6
R745	C-6
R746	C-4
R747	C-4
R748	C-6
R749	C-5
R750	C-6
R752	C-3
R754	C-6
R755	C-5
R756	C-3
R759	B-3
R760	B-3
R762	C-4
R790	C-7
Resistor Array	
RA301	E-4
RA302	F-5
RA303	E-3
RA304	E-4
RA305	D-4
RA306	D-4
RA307	D-4
RA308	D-3
RA309	C-3
Wire	
W209	F-1
W220	D-2
W301	E-4
W303	F-6
W304	F-6
W306	F-3
W312	D-4
W313	E-7
W325	F-3
W710	B-3
W711	A-6

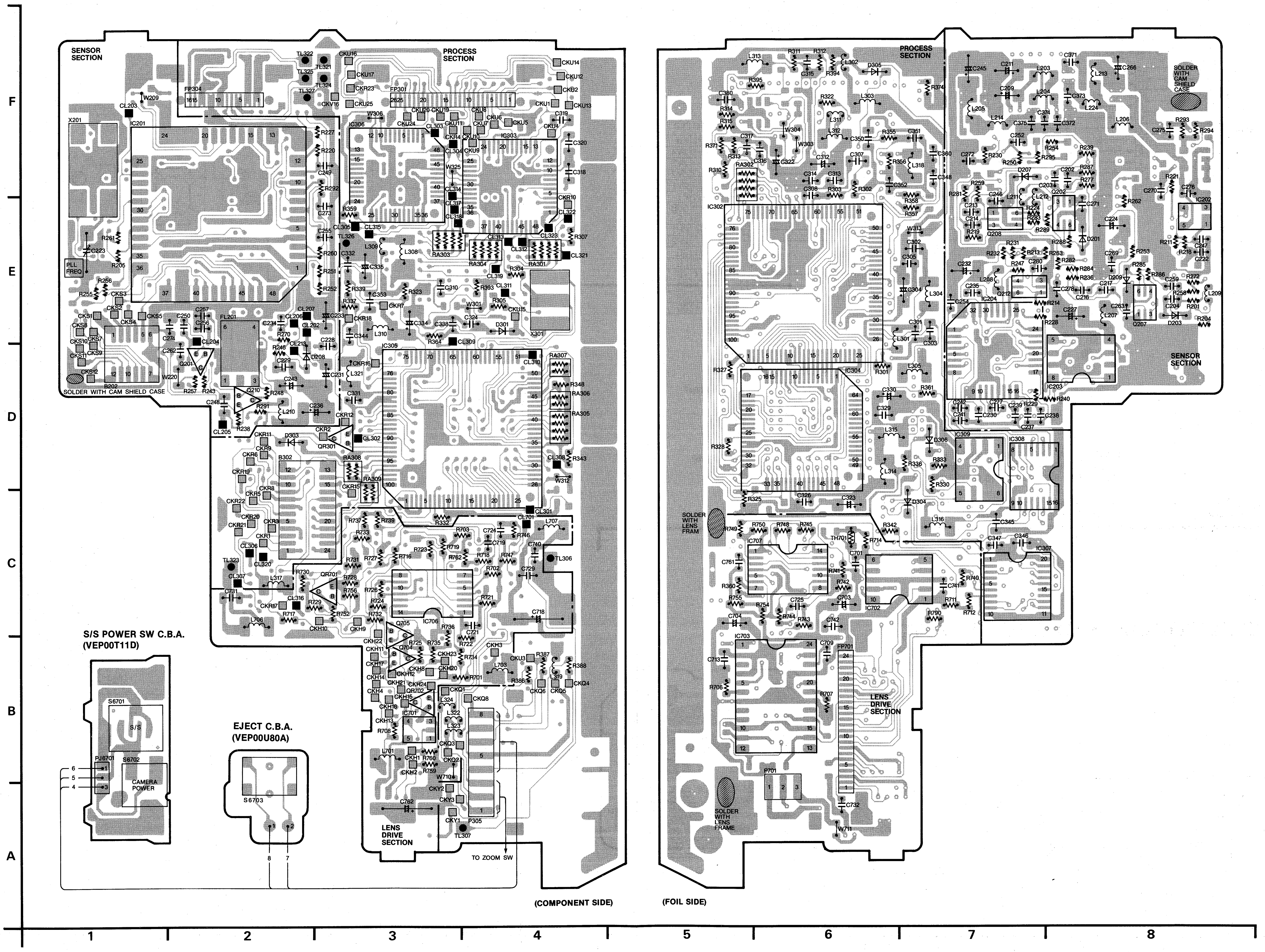
ADDRESS INFORMATION

3-15. CAMERA MAIN [SENSOR, LENS DRIVE, PROCESS Section] C.B.A. (VE



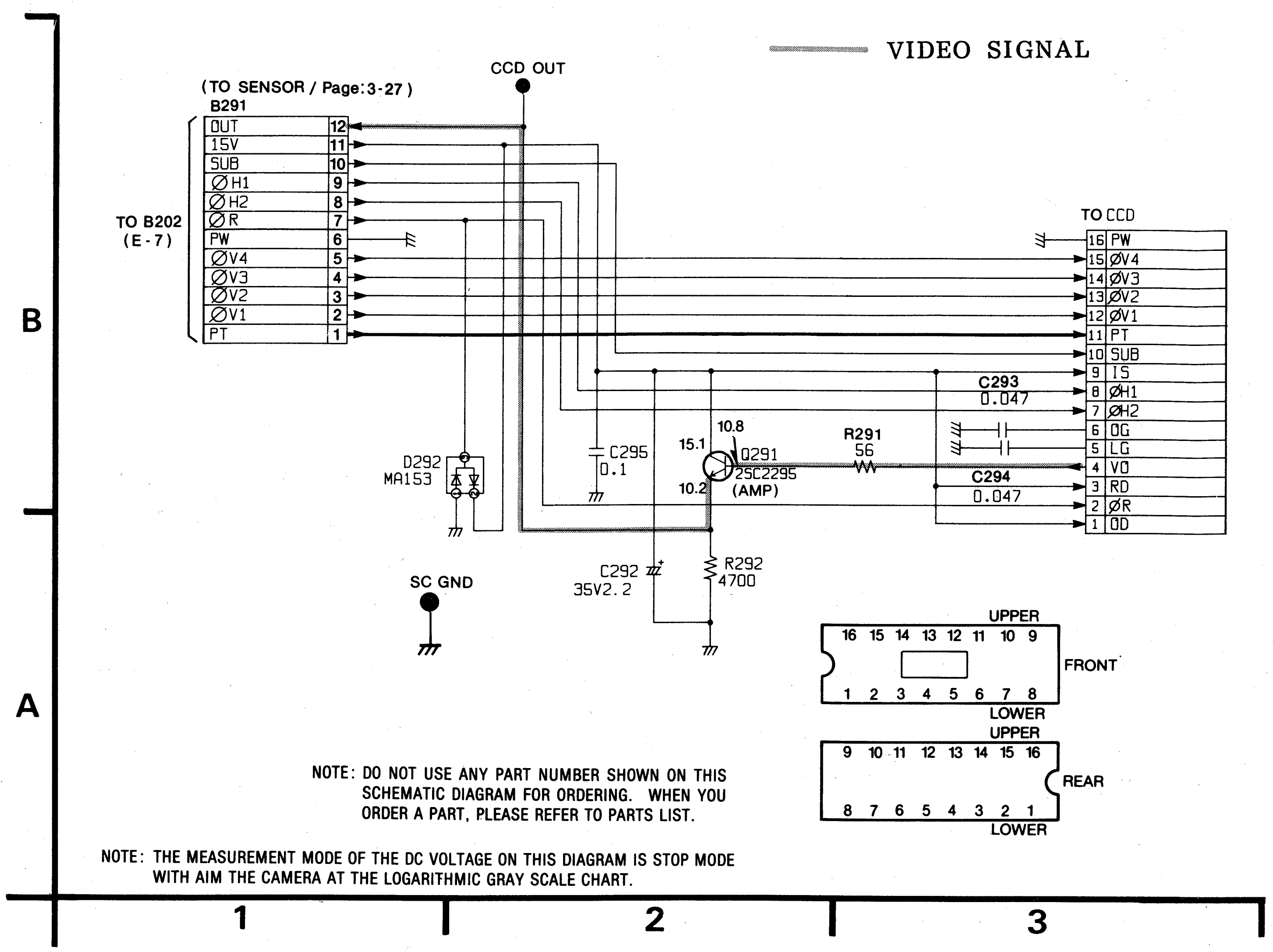
3-15. CAMERA MAIN [SENSOR, LENS DRIVE, PROCESS Section] C.B.A. (VEP23204A)

E-4	R756	C-3
F-5	R759	B-3
F-6	R760	B-3
F-6	R762	C-4
F-5	R790	C-7
F-5	**Resistor Array**	
F-5		
F-6	RA301	E-4
E-3	RA302	F-5
C-5	RA303	E-3
D-5	RA304	E-4
D-5	RA305	D-4
D-7	RA306	D-4
C-3	RA307	D-4
D-7	RA308	D-3
D-7	RA309	C-3
E-3	**Wire**	
E-3		
C-6	W209	F-1
D-4	W220	D-2
D-4	W301	E-4
F-6	W303	F-6
F-6	W304	F-6
E-7	W306	F-3
E-7	W312	D-4
E-3	W313	E-7
C-5	W325	F-3
D-7	W710	B-3
E-3	W711	A-6
F-5		
F-7		
B-4		
B-4		
B-4		
E-4		
F-6		
F-6		
B-3		
C-4		
C-4		
B-5		
B-6		
B-3		
C-7		
C-7		
C-6		
C-3		
C-2		
C-4		
C-3		
C-4		
B-4		
C-3		
C-3		
B-3		
C-3		
C-3		
C-3		
C-2		
C-2		
C-3		
C-3		
C-3		
B-3		
B-3		
B-3		
C-3		
C-3		
C-7		
C-6		
C-6		
C-6		
C-6		
C-6		
C-4		
C-4		
C-6		
C-5		
C-6		
C-3		
C-6		
C-5		


F
E
D
C
B
A
1
2
3
4
5
6
7
8
SENSOR SECTION
PROCESS SECTION
LENS DRIVE SECTION
SOLDER WITH CAM SHIELD CASE
SOLDER WITH LENS FRAM
SOLDER WITH LENS FRAME
PLL FREQ
IC201
IC301
IC303
IC305
IC302
IC304
IC202
IC203
IC204
IC307
IC308
IC309
IC701
IC702
IC703
IC706
IC707
FP301
FP304
FP701
P701
P305
X201
X301
S/S POWER SW C.B.A.
(VEP00T11D)
S6701
S/S
S6702
CAMERA POWER
PJ6701
EJECT C.B.A.
(VEP00U80A)
S6703
TO ZOOM SW
(COMPONENT SIDE)
(FOIL SIDE)

Next Page:
CCD FLEX. CARD, POWER Section

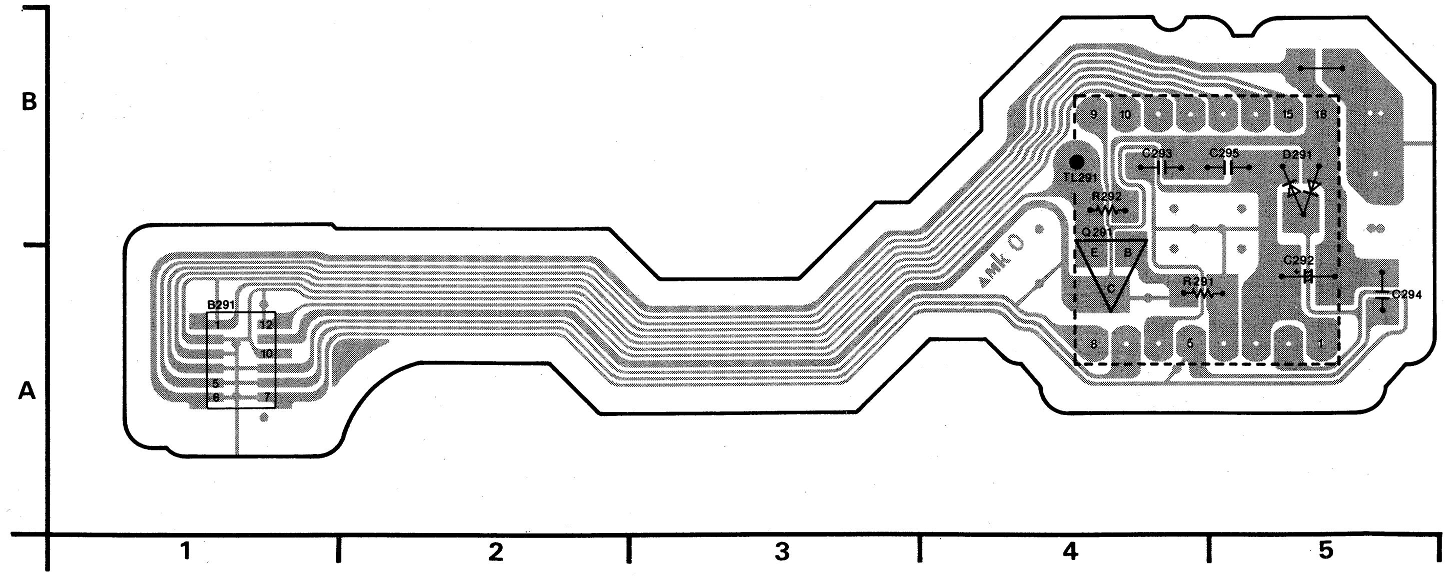
3-16. CCD FLEXIBLE CARD SCHEMATIC DIAGRAM


VIDEO SIGNAL
CCD OUT
(TO SENSOR / Page:3-27)
B291
OUT 12
15V 11
SUB 10
ØH1 9
ØH2 8
ØR 7
PW 6
ØV4 5
ØV3 4
ØV2 3
ØV1 2
PT 1
TO B202 (E-7)
TO CCD
16 PW
15 ØV4
14 ØV3
13 ØV2
12 ØV1
11 PT
10 SUB
9 IS
8 ØH1
7 ØH2
6 OG
5 LG
4 VO
3 RD
2 ØR
1 OD
C293 0.047
C294 0.047
R291 56
C295 0.1
Q291 2SC2295 (AMP)
10.8
15.1
10.2
D292 MA153
C292 35V2.2
R292 4700
SC GND
UPPER
16 15 14 13 12 11 10 9
FRONT
1 2 3 4 5 6 7 8
LOWER
UPPER
9 10 11 12 13 14 15 16
REAR
8 7 6 5 4 3 2 1
LOWER
B
A
1
2
3

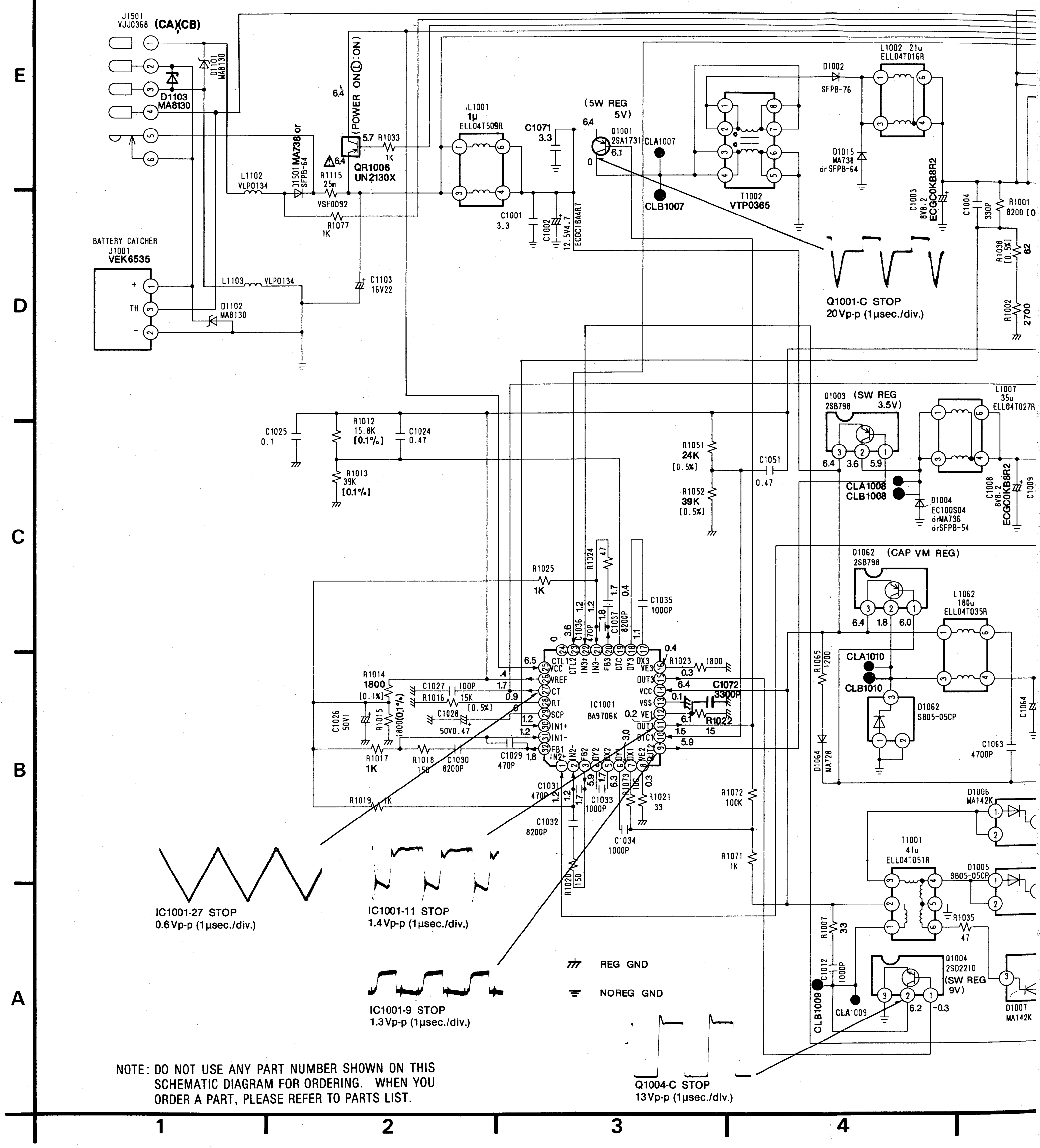
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE WITH AIM THE CAMERA AT THE LOGARITHMIC GRAY SCALE CHART.

3-17. CCD FLEXIBLE CARD C.B.A. (VEK6611)

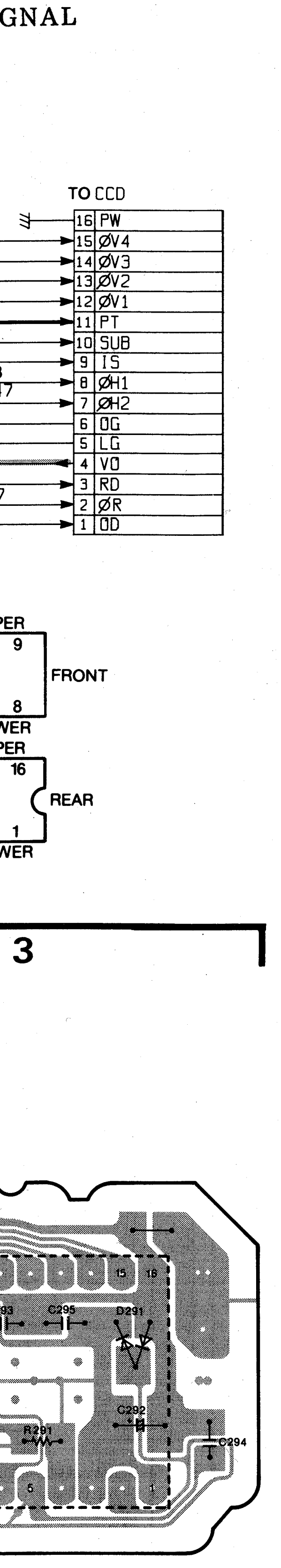

B291
TL291
R292
Q291
C293
C295
D291
R291
C292
C294
B
A
1
2
3
4
5

3-18. POWER SCHEMATIC DIAGRAM

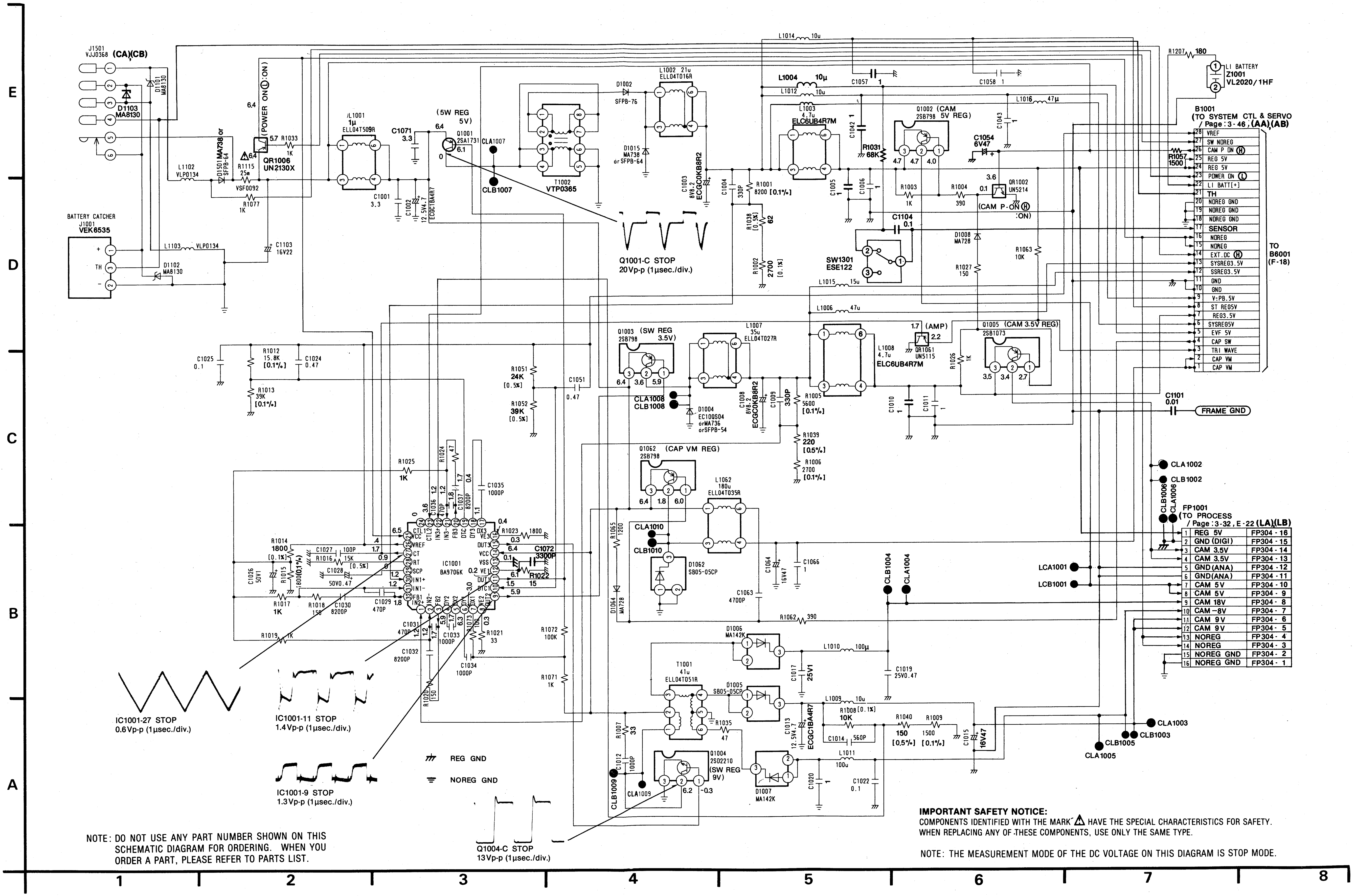

J1501 VJJ0368 (CA)(CB)
D1103 MA8130
D1101 MA8130
(POWER ON①:ON)
QR1006 UN2130X
R1033 1K
R1115 25m
VSF0092
R1077 1K
L1102 VLP0134
D1501 MA738 or SFPB-64
L1001 1μ ELL04T509R
C1071 3.3
C1001 3.3
C1002 12.5V4.7
(5W REG 5V)
Q1001 2SA1731
CLA1007
CLB1007
T1002 VTP0365
D1002 SFPB-76
L1002 21u ELL04T016R
D1015 MA738 or SFPB-64
C1003 8V8.2 ECGC0KB8R2
C1004 330P
R1001 8200
R1038 62
R1002 2700
Q1001-C STOP
20Vp-p (1μsec./div.)
BATTERY CATCHER
J1001 VEK6535
L1103 VLP0134
D1102 MA8130
C1103 16V22
C1025 0.1
R1012 15.8K [0.1%]
C1024 0.47
R1013 39K [0.1%]
R1051 24K [0.5%]
R1052 39K [0.5%]
C1051 0.47
Q1003 (SW REG 3.5V) 2SB798
L1007 35u ELL04T027R
CLA1008
CLB1008
D1004 EC10QS04 or MA736 or SFPB-54
C1008 8V8.2 ECGC0KB8R2
Q1062 (CAP VM REG) 2SB798
L1062 180u ELL04T035R
R1065 1200
CLA1010
CLB1010
D1062 SB05-05CP
C1063 4700P
D1064 MA728
R1025 1K
R1024 47
C1035 1000P
IC1001 BA9706K
R1014 1800 [0.1%]
R1015 1800 [0.1%]
C1026 50V1
C1027 100P
R1016 15K [0.5%]
C1028 50V0.47
R1017 1K
R1018 150
C1030 8200P
C1029 470P
C1031 470P
C1032 8200P
C1033 1000P
C1034 1000P
R1019 1K
R1020 150
R1021 33
R1023 1800
C1072 3300P
R1022
R1072 100K
R1071 1K
D1006 MA142K
T1001 41u ELL04T051R
D1005 SB05-05CP
R1035 47
R1007 33
C1012 1000P
CLB1009
CLA1009
Q1004 2SD2210 (SW REG 9V)
D1007 MA142K
IC1001-27 STOP
0.6Vp-p (1μsec./div.)
IC1001-11 STOP
1.4Vp-p (1μsec./div.)
IC1001-9 STOP
1.3Vp-p (1μsec./div.)
Q1004-C STOP
13Vp-p (1μsec./div.)
REG GND
NOREG GND
E
D
C
B
A
1
2
3
4

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-18. POWER SCHEMATIC DIAGRAM



GNAL
TO CCD
16 PW
15 ØV4
14 ØV3
13 ØV2
12 ØV1
11 PT
10 SUB
9 IS
8 ØH1
7 ØH2
6 OG
5 LG
4 VD
3 RD
2 ØR
1 OD
FRONT
REAR
3
5



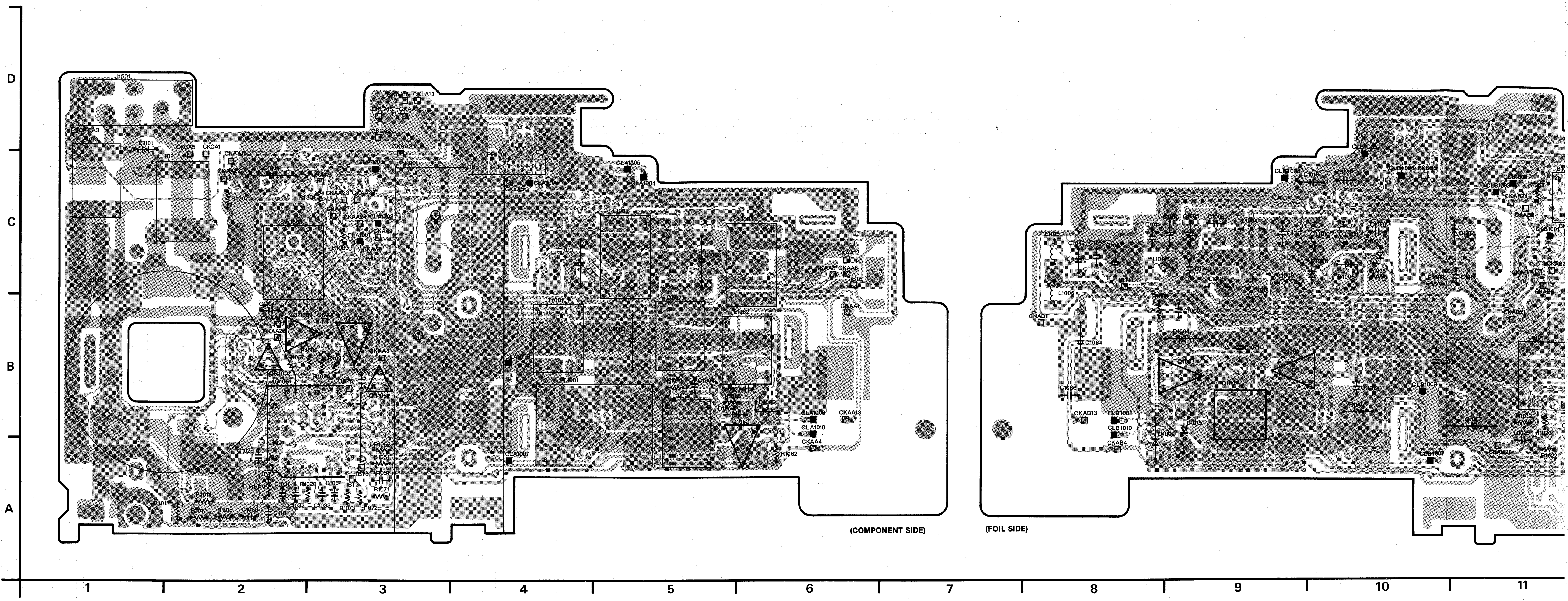
J1501 VJJ0368 (CA)(CB)
D1103 MA8130
D1101 MA8130
BATTERY CATCHER J1001 VEK6535
TH
L1102 VLP0134
L1103 VLP0134
D1102 MA8130
C1103 16V22
D1501 MA738 or SFPB-64
R1115 25m
VSF0092
R1077 1K
QR1006 UN2130X
R1033 1K
(POWER ON Ⓛ:ON)
L1001 1µ ELL04T509R
C1071 3.3
C1001 3.3
C1002 12.5V4.7 ECGC1BA4R7
(5W REG 5V)
Q1001 2SA1731
CLA1007
CLB1007
T1002 VTP0365
Q1001-C STOP 20Vp-p (1µsec./div.)
D1002 SFPB-76
L1002 21u ELL04T016R
D1015 MA738 or SFPB-64
C1003 8V8.2 ECGC0KB8R2
C1004 330P
R1001 8200 [0.1%]
R1038 62
R1002 2700 [0.1%]
L1014 10u
L1004 10µ
L1012 10u
L1003 4.7u ELC6UB4R7M
C1042 1
R1031 68K
C1005 1
C1006
C1057 1
C1058 1
Q1002 (CAM 2SB798 5V REG)
C1043
C1054 6V47
L1016 47µ
R1003 1K
R1004 390
QR1002 UN5214
(CAM P-ON Ⓗ :ON)
C1104 0.1
SW1301 ESE122
D1008 MA728
R1027 150
R1063 10K
L1015 15u
L1006 47u
R1207 180
LI BATTERY Z1001 VL2020/1HF
B1001 (TO SYSTEM CTL & SERVO / Page: 3-46, (AA)(AB)
R1057 1500
28 VREF
27 SW NOREG
26 CAM P ON Ⓗ
25 REG 5V
24 REG 5V
23 POWER ON Ⓛ
22 LI BATT[+]
21 TH
20 NOREG GND
19 NOREG GND
18 NOREG GND
17 SENSOR
16 NOREG
15 NOREG
14 EXT.DC Ⓗ
13 SYSREG3.5V
12 SSREG3.5V
11 GND
10 GND
9 V:PB.5V
8 ST REG5V
7 REG3.5V
6 SYSREG5V
5 EVF 5V
4 CAP SW
3 TRI WAVE
2 CAP VM
1 CAP VM
TO B6001 (F-18)
Q1003 (SW REG 2SB798 3.5V)
L1007 35u ELL04T027R
CLA1008
CLB1008
D1004 EC10QS04 or MA736 or SFPB-54
C1008 8V8.2 ECGC0KB8R2
C1009 330P
R1005 5600 [0.1%]
R1039 220 [0.5%]
R1006 2700 [0.1%]
L1008 4.7u ELC6UB4R7M
QR1061 UN5115
(AMP)
R1026 1K
Q1005 (CAM 3.5V REG) 2SB1073
C1010 1
C1011 1
C1101 0.01
FRAME GND
C1025 0.1
R1012 15.8K [0.1%]
C1024 0.47
R1013 39K [0.1%]
R1051 24K [0.5%]
R1052 39K [0.5%]
C1051 0.47
Q1062 (CAP VM REG) 2SB798
L1062 180u ELL04T035R
CLA1010
CLB1010
D1062 SB05-05CP
C1064 16V47
C1066 1
C1063 4700P
R1065 1200
D1064 MA728
R1062 390
CLB1004
CLA1004
LCA1001
LCB1001
CLA1002
CLB1002
CLB1006
CLA1006
FP1001 (TO PROCESS / Page: 3-32, E-22 (LA)(LB)
1 REG 5V FP304-16
2 GND (DIGI) FP304-15
3 CAM 3.5V FP304-14
4 CAM 3.5V FP304-13
5 GND (ANA) FP304-12
6 GND (ANA) FP304-11
7 CAM 5V FP304-10
8 CAM 5V FP304-9
9 CAM 18V FP304-8
10 CAM -8V FP304-7
11 CAM 9V FP304-6
12 CAM 9V FP304-5
13 NOREG FP304-4
14 NOREG FP304-3
15 NOREG GND FP304-2
16 NOREG GND FP304-1
R1025 1K
R1024 47
C1035 1000P
C1036 470P
C1037 8200P
IC1001 BA9706K
R1014 1800 [0.1%]
C1027 100P
R1016 15K [0.5%]
C1028 50V0.47
C1026 50V1
R1015 1800 [0.1%]
R1017 1K
R1018 150
C1030 8200P
C1029 470P
R1019 1K
R1023 1800
C1072 3300P
R1022 15
C1031 470P
C1033 1000P
C1032 8200P
C1034 1000P
R1021 33
R1020 150
R1072 100K
R1071 1K
IC1001-27 STOP 0.6Vp-p (1µsec./div.)
IC1001-11 STOP 1.4Vp-p (1µsec./div.)
IC1001-9 STOP 1.3Vp-p (1µsec./div.)
D1006 MA142K
L1010 100µ
C1017 25V1
C1019 25V0.47
T1001 41u ELL04T051R
D1005 SB05-05CP
R1035 47
L1009 10u
R1008 10K [0.1%]
R1040 150 [0.5%]
R1009 1500 [0.1%]
C1014 560P
C1013 12.5V4.7 ECGC1BA4R7
C1015 16V47
L1011 100u
C1020 1
C1022 0.1
R1007 33
C1012 1000P
CLB1009
CLA1009
Q1004 2SD2210 (SW REG 9V)
D1007 MA142K
CLA1003
CLB1003
CLB1005
CLA1005
Q1004-C STOP 13Vp-p (1µsec./div.)
REG GND
NOREG GND
A
B
C
D
E
1
2
3
4
5
6
7
8

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

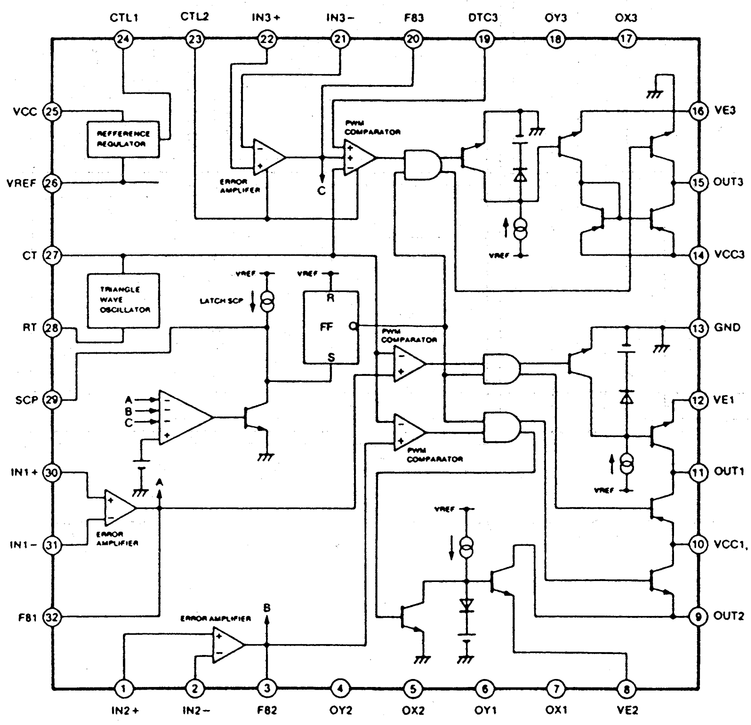
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

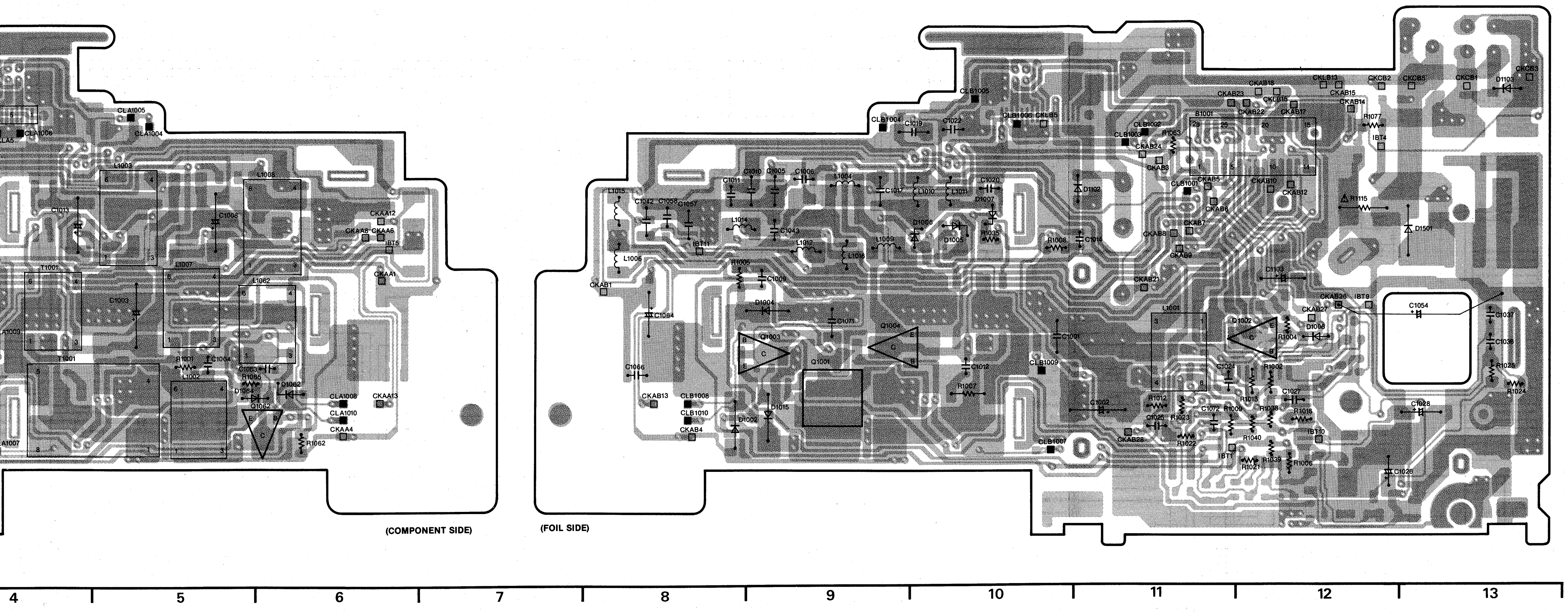
3-19. POWER C.B.A. (VEP01594A)

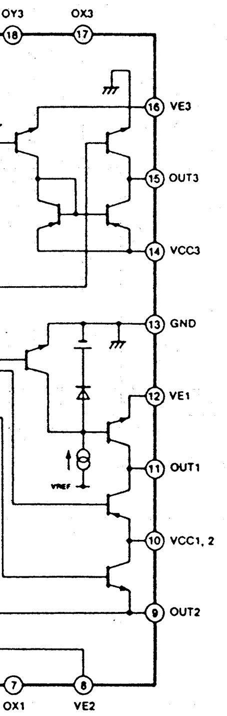

D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
J1501
SW1301
IC1001
T1001
L1003
L1005
L1007
L1002
L1062
L1001
Q1001
Q1003
Q1004
Q1005
(COMPONENT SIDE)
(FOIL SIDE)

IC BLOCK

IC1001 (BA9706K)


CTL1
CTL2
IN3+
IN3−
FB3
DTC3
OY3
OX3
VCC
VREF
CT
RT
SCP
IN1+
IN1−
FB1
VE3
OUT3
VCC3
GND
VE1
OUT1
VCC1, 2
OUT2
IN2+
IN2−
FB2
OY2
OX2
OY1
OX1
VE2
REFFERENCE REGULATOR
TRIANGLE WAVE OSCILLATOR
ERROR AMPLIFIER
PWM COMPARATOR
LATCH SCP
FF
VREF


(COMPONENT SIDE)
(FOIL SIDE)
4
5
6
7
8
9
10
11
12
13
CLA1004
CLA1005
CLA1006
CLA1007
CLA1008
CLA1009
CLA1010
CLB1001
CLB1002
CLB1003
CLB1004
CLB1005
CLB1006
CLB1007
CLB1008
CLB1009
CLB1010
T1001
L1002
L1003
L1007
L1008
L1062
Q1001
Q1002
Q1003
Q1004
Q1062
B1001
IC1001
C1054
D1501
R1115
D1103

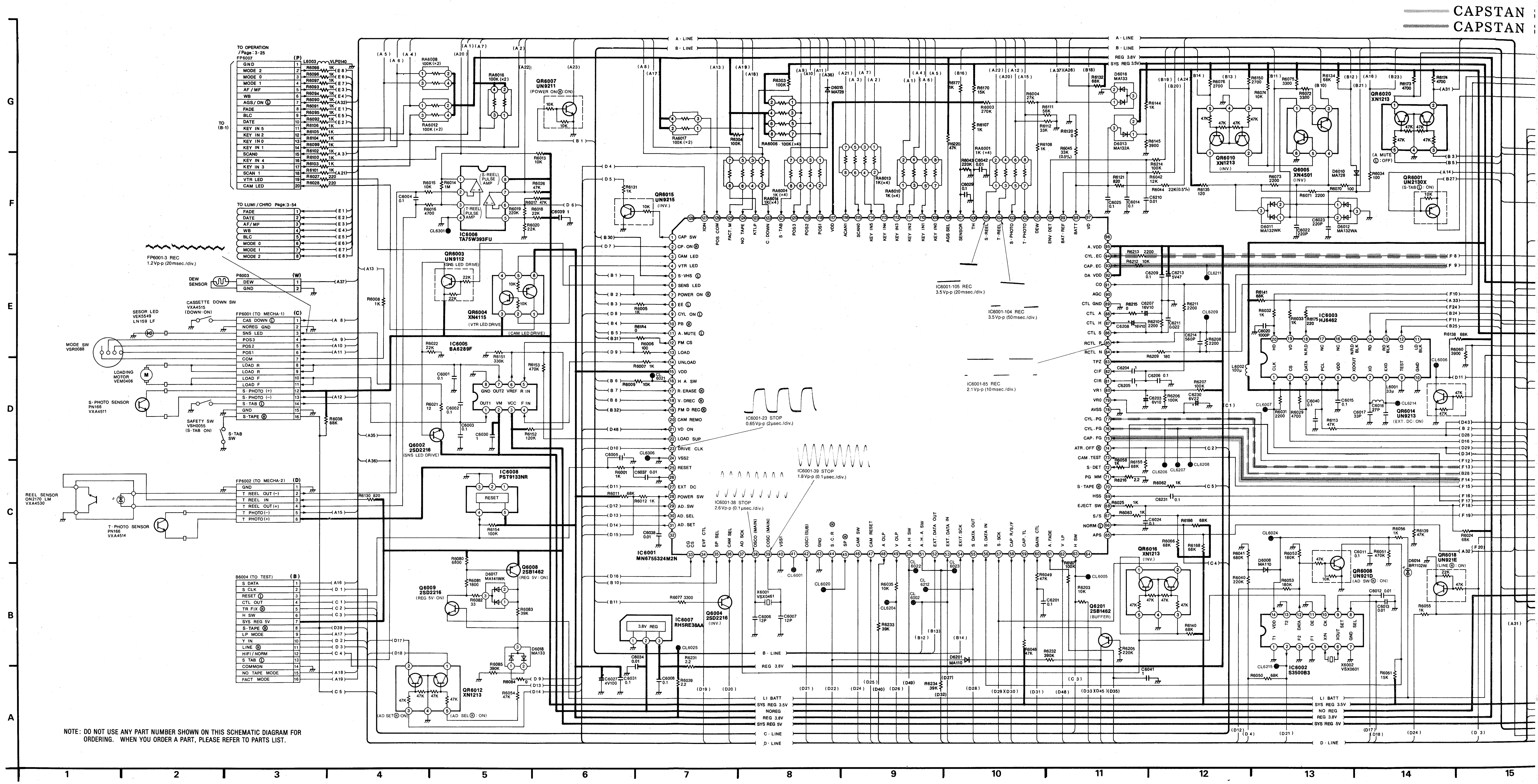

OY3
OX3
⑱
⑰
⑯ VE3
⑮ OUT3
⑭ VCC3
⑬ GND
⑫ VE1
⑪ OUT1
⑩ VCC1, 2
⑨ OUT2
⑦
⑧
OX1
VE2
VREF

POWER C.B.A.	
Integrated Circuit	
IC1001	B-2
Transistor	
Q1001 Q1002 Q1003 Q1004 Q1005	B-9 B-12 B-9 B-9 B-3
Transistor & Resistor	
QR1002 QR1006 QR1061 QR1062	B-2 B-2 B-3 B-6
Fuse Resistor	
R1115	C-12
Test Point	
CLA1001 CLB1001 CLA1002 CLB1002 CLA1003 CLB1003 CLA1004 CLB1004 CLA1005 CLB1005 CLA1006 CLB1006 CLA1007 CLB1007 CLA1008 CLB1008 CLA1009 CLB1009 CLA1010 CLB-1010	C-3 C-11 C-3 C-11 C-3 C-11 C-5 C-9 C-5 C-10 C-4 C-10 A-4 A-10 B-6 B-8 B-4 B-10 B-6 B-8
Connector	
B1001 FP1001	C-11 C-4

ADDRESS INFORMATION

Next Page:
SYSTEM CTL & SERVO Section

3-20. SYSTEM CONTROL & SERVO SCHEMATIC DIAGRAM


CAPSTAN
CAPSTAN
A · LINE
B · LINE
C · LINE
D · LINE
REG 3.8V
SYS REG 3.5V
SYS REG 5V
LI BATT
NOREG
TO OPERATION /Page:3-25
FP6007
TO (B-1)
GND
MODE 2
MODE 0
MODE 1
AF / MF
WB
AGS / ON Ⓛ
FADE
BLC
DATE
KEY IN 5
KEY IN 2
KEY IN 0
KEY IN 1
SCAN0
KEY IN 4
KEY IN 3
SCAN 1
VTR LED
CAM LED
TO LUMI / CHRO Page:3-54
FP6001-3 REC
1.2Vp-p (20msec./div.)
DEW SENSOR
P6003
DEW
SESOR LED
VEK5549
LN159 LF
CASSETTE DOWN SW
VXA4515
(DOWN : ON)
FP6001 (TO MECHA-1)
CAS DOWN Ⓛ
NOREG GND
SNS LED
POS3
POS2
POS1
COM
LOAD R
LOAD F
S · PHOTO (+)
S · PHOTO (−)
S · TAB Ⓛ
S · TAPE Ⓗ
MODE SW
VSR0088
LOADING MOTOR
VEM0406
S · PHOTO SENSOR
PN166
VXA4511
SAFETY SW
VSH0055
(S · TAB ON)
S · TAB SW
REEL SENSOR
ON2170 LM
VXA4530
FP6002 (TO MECHA-2)
T REEL OUT (−)
T REEL IN
T REEL OUT (+)
T PHOTO (−)
T PHOTO (+)
T · PHOTO SENSOR
PN166
VXA4514
B6004 (TO TEST)
S DATA
S CLK
RESET Ⓛ
CTL OUT
TR FIX Ⓗ
H SW
SYS REG 5V
S · TAPE Ⓗ
LP MODE
Y IN
LINE Ⓗ
HIFI / NORM
S TAB Ⓛ
COMMON
NO TAPE MODE
FACT MODE
QR6007
UN9211
(POWER ON Ⓗ : ON)
IC6006
TA75W393FU
S · REEL PULSE AMP
T · REEL PULSE AMP
QR6003
UN9112
(SNS LED DRIVE)
QR6004
XN4115
(VTR LED DRIVE)
(CAM LED DRIVE)
IC6005
BA6289F
Q6002
2SD2216
(SNS LED DRIVE)
IC6008
PST9133NR
RESET
Q6009
2SD2216
(REG 5V · ON)
Q6008
2SB1462
(REG 5V · ON)
QR6012
XN1213
(AD SET Ⓗ : ON)
(AD SEL Ⓗ : ON)
QR6015
UN9215
(INV.)
IC6001
MN6755324M2N
IC6001-23 STOP
0.65Vp-p (2μsec./div.)
IC6001-38 STOP
2.6Vp-p (0.1μsec./div.)
IC6001-39 STOP
1.8Vp-p (0.1μsec./div.)
IC6001-105 REC
3.5Vp-p (20msec./div.)
IC6001-104 REC
3.5Vp-p (50msec./div.)
IC6001-85 REC
2.1Vp-p (10msec./div.)
IC6007
RH5RE38AA
3.8V REG
Q6004
2SD2216
(INV.)
X6001
VSX0461
D6201
MA110
Q6201
2SB1462
(BUFFER)
QR6016
XN1213
(INV.)
QR6010
XN1213
(INV.)
Q6005
XN4501
(INV.)
QR6020
XN1213
(A MUTE Ⓛ : OFF)
QR6001
UN2130X
(S · TAB Ⓛ : ON)
IC6003
HJ5462
QR6014
UN9213
(EXT. DC : ON)
QR6008
UN921D
(AD SW Ⓗ : ON)
QR6018
UN921E
(LINE Ⓛ : ON)
IC6002
S3500B3
X6002
VSX0601
G
F
E
D
C
B
A
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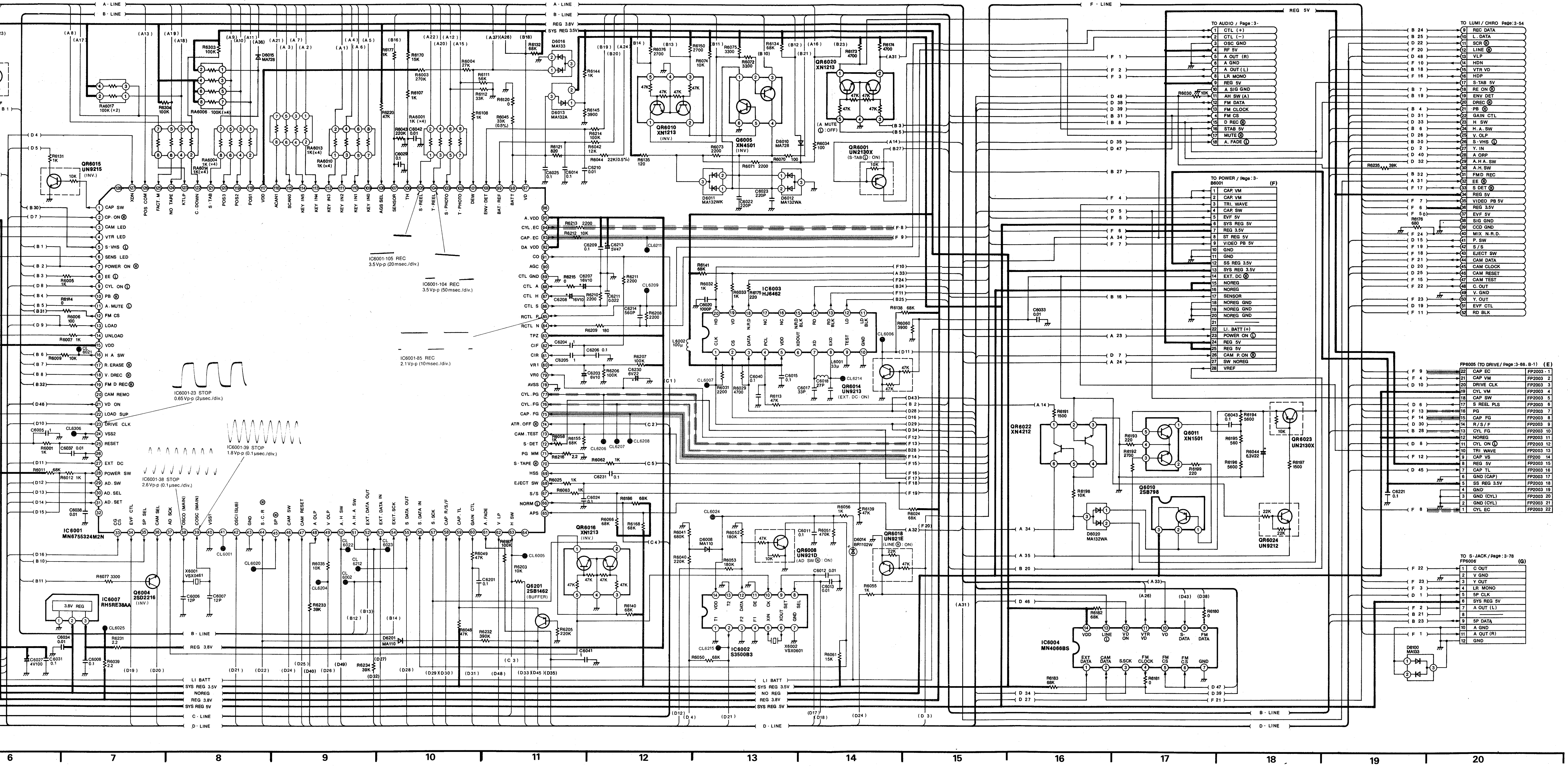
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP


A · LINE
B · LINE
C · LINE
D · LINE
F · LINE
REG 3.8V
SYS REG 3.5V
REG 5V
LI BATT
NOREG
SYS REG 5V
IC6001
MN6755324M2N
IC6003
HJ6462
IC6002
S3500B3
IC6004
MN4066BS
IC6007
RH5RE38AA
3.8V REG
QR6015
UN9215
QR6010
XN1213
Q6005
XN4501
QR6020
XN1213
QR6001
UN2130X
QR6014
UN9213
QR6016
XN1213
QR6008
UN921D
QR6018
UN921E
Q6201
2SB1462
(BUFFER)
Q6004
2SD2216
QR6022
XN4212
Q6011
XN1501
Q6010
2SB798
QR6023
UN2130X
QR6024
UN9212
D6020
MA132WA
D6100
MA133
X6001
VSX0461
X6002
VSX0601
IC6001-105 REC
3.5Vp-p (20msec./div.)
IC6001-104 REC
3.5Vp-p (50msec./div.)
IC6001-85 REC
2.1Vp-p (10msec./div.)
IC6001-23 STOP
0.65Vp-p (2μsec./div.)
IC6001-39 STOP
1.8Vp-p (0.1μsec./div.)
IC6001-38 STOP
2.6Vp-p (0.1μsec./div.)
TO AUDIO / Page:3-
TO POWER / Page:3-
B6001
(F)
TO LUMI / CHRO Page:3-54
FP6005 (TO DRIVE / Page:3-68, B-1) (E)
TO S-JACK / Page:3-78
FP6006
(G)
6
7
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19
20

SYSTEM CONTROL & SERVO ICs DC VOLTAGE CHART (SP MODE)

REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	0	3.6	3.7	0	0	3.7	3.6	0	3.7	0	0	0	0	0	3.7	0	0	0	0	0.4
PLAY	0	0	3.7	0	0	3.7	3.7	3.7	0	3.7	3.7	0	0	0	3.7	2.7	0	0	0	0
F.F	0	3.6	3.7	0	0	3.3	3.7	0	0	0	0	0	0	0	3.7	2.7	0	0	0	0.5

REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	1.6	0	1.8	0	3.7	0	0	0	0	0	0	0	3.1	3.7	2.6	2.3	3.7	1.5	1.9	0
PLAY	1.1	0	1.9	0	0	0	0	0	0	0	0	0	3.1	3.2	2.7	2.7	3.7	3.4	1.9	0
F.F	1.6	0	1.8	0	3.7	0	0	0	0	0	0	0	3.2	3.7	2.5	2.5	3.7	1.5	1.9	0

REF. NO.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	3.7	0	0	0	3.7	1.0	3.7	0	0	0	0	3.1	3.1	3.0	3.3	3.4	2.2	1.7	3.7	1.0
PLAY	0	0.8	0	0	0	0.9	0.9	0.3	0.2	2.8	2.8	3.1	3.2	0	3.2	3.5	3.4	0	3.7	0
F.F	3.7	0	0	0	3.7	1.3	3.7	0	0	3.7	3.7	3.1	0.3	3.0	3.3	3.4	3.4	0.2	3.7	1.0

REF. NO.	IC6001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	0	0	3.7	0	3.4	0	3.4	0	1.2	0	0.3	0	0.9	0	0	0	0	0	1.8	1.8
PLAY	0	0	1.7	0	0	0	3.4	3.4	2.0	0	1.2	0	0	1.2	1.7	1.7	0	0	1.8	1.8
F.F	0	0	2.2	0	3.4	0	3.4	0	0	0	1.0	0	0	0	1.7	1.7	0	0	1.8	1.8

REF. NO.	IC6001																			
MODE	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
STOP	1.6	2.0	3.7	0	0	0	1.8	1.8	0	2.0	1.8	3.7	0.1	3.2	3.7	0	3.4	3.3	2.4	0
PLAY	1.8	0	0	0	0	0	1.8	1.8	0	2.0	1.8	3.7	1.6	2.1	3.7	0	3.4	3.3	2.5	3.8
F.F	0	2.0	3.7	0	0	0	1.8	1.8	0	2.0	1.8	3.7	1.5	2.1	3.7	0	3.4	3.3	2.4	0

REF. NO.	IC6001																			
MODE	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120
STOP	0	0	0	0	0	3.7	0	0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	0	3.7
PLAY	0	0	0	3.4	3.4	3.7	0	0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	0
F.F	0	0	0	2.0	2.0	3.7	0	0	0	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	0

REF. NO.	IC6001																			
MODE	121	122	123	124	125	126	127	128												
STOP	0.1	0	3.7	3.7	3.7	0	0	0												
PLAY	0.2	0	3.7	3.7	3.7	0	0	0												
F.F	0.1	0	3.7	3.7	3.7	0	0	0												

REF. NO.	IC6002																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	0	0	0	0	0	0	0	1.6	1.6	3.7	0	0	0	1.6						
PLAY	0	0	0	0	0.4	0	0	0.8	0	0	0	0	0	1.6						
F.F	0	0	0	0	0	0.7	0	1.6	1.6	3.7	0	0	0	1.6						

REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	3.3	3.0	3.3	3.6	3.4	0	1.4	1.4	0	0	0	0	0	0	0	0	0	0	3.4	3.2
PLAY	3.4	0	3.0	3.6	3.4	0	0.8	1.4	0	0	0	0	0	0	0	0	0	0	3.4	3.2
F.F	3.4	3.0	3.3	0	3.4	0	1.4	1.4	0	0	0	0	0	0	0	0	0	0	3.4	4.2

REF. NO.	IC6004																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	3.1	3.2	3.2	3.4	0	0	0	3.4	3.3	3.4	3.4	1.4	1.4	3.4						
PLAY	3.2	3.2	3.2	3.4	0	0	0	3.4	3.3	3.4	3.4	1.4	1.4	3.4						
F.F	3.2	3.2	3.2	3.4	0	0	0	3.4	3.3	3.4	3.4	1.4	1.4	3.4						

REF. NO.	IC6005										IC6006									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8		
STOP	0	6.6	4.9	0	0	3.0	0	0			0	0.7	0.6	0	1.7	2.9	0	3.5		
PLAY	0.1	6.7	4.9	0	0	3.0	0	0			0	0	0	0	1.7	0	3.4	3.5		
F.F	0	6.5	4.9	0	0	3.0	0.1	0			1.6	0.6	0	0	0	2.9	0	3.5		

REF. NO.	IC6007										IC6008									
MODE	1	2	3								1	2	3	4	5					
STOP	0	6.6	3.7								0	0	0	3.7	3.7					
PLAY	0	6.7	3.7								0	0	0	3.7	3.7					
F.F	0	6.5	3.7								0	0	0	3.7	3.7					

SYSTEM CONTROL & SERVO TRs DC VOLTAGE CHART (SP MODE)

REF. NO.	Q6002			Q6004			Q6005						Q6008			6009		
MODE	E	C	B	E	C	B	1	2	3	4	5	6	E	C	B	E	C	B
STOP	0.1	6.6	0	0	3.5	0	4.4	0.1	2.7	4.6	0	0	4.9	0	4.2	3.3	4.1	0
PLAY	0.1	6.6	0	3.7	1.3	0.2	4.4	0§1	2.7	4.6	0	0	4.9	0	4.2	3.3	4.1	0
F.F	0.2	6.4	0.3	0	3.5	0	4.4	0.1	2.7	4.6	0	0	4.8	0	4.2	3.0	4.8	0

REF. NO.	Q6010			Q6011						Q6201								
MODE	E	C	B	1	2	3	4	5		E	C	B						
STOP	5.9	5.0	6.5	5.0	5.9	2.3	1.8	2.5		3.7	3.7	3.1						
PLAY	5.7	4.8	6.3	4.8	5.5	2.3	1.8	2.4		3.7	3.7	3.1						
F.F	5.8	5.0	6.4	5.0	5.7	2.3	1.8	2.5		3.7	3.7	3.1						

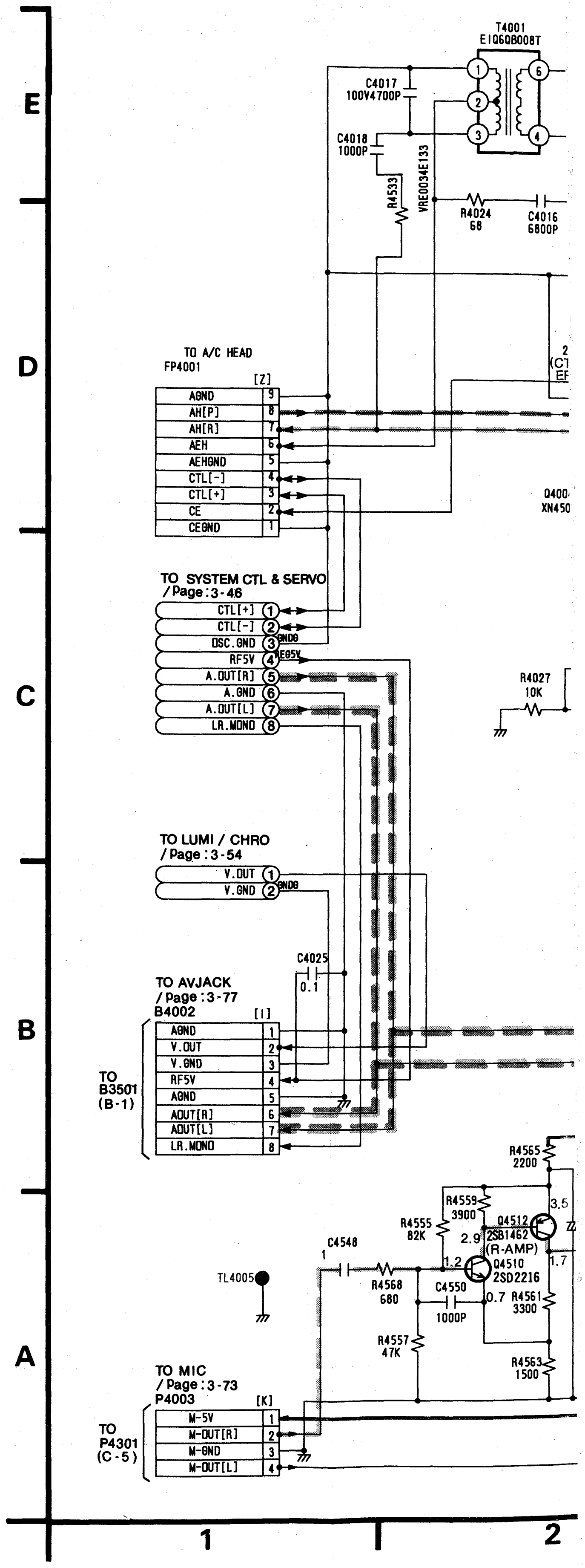
REF. NO.	QR6001			QR6003			QR6004						QR6007			QR6008		
MODE	E	C	B	E	C	B	1	2	3	4	5	6	E	C	B	E	C	B
STOP	4.9	4.9	4.2	3.5	0	3.7	0	0	3.5	3.4	3.7	3.7	0	0	3.7	0	3.4	0
PLAY	4.9	4.9	4.2	3.5	0	3.7	0	0	3.5	3.4	3.7	3.7	0	0	3.7	0	3.5	0
F.F	4.9	4.9	4.2	3.5	0.2	3.3	0	0	3.5	3.4	3.7	3.7	0	0	3.7	0	3.4	0

REF. NO.	QR6010						QR6012						QR6014			QR6015		
MODE	1	2	3	4	5		1	2	3	4	5		E	C	B	E	C	B
STOP	0.1	0	0	0	3.0		1.6	1.6	0	0	0		0	0	5.5	0	6.6	0
PLAY	0.2	0	3.1	0	3.0		1.5	1.6	0	0	0		0	0	5.5	0	5.8	0
F.F	0.1	0	3.1	0	3.0		1.6	1.6	0	0	0		0	0	0	0	5.2	0

REF. NO.	QR6016						QR6018			QR6020								
MODE	1	2	3	4	5		E	C	B	1	2	3	4	5				
STOP	0	0	0	0	0		0	1.2	0.6	3.5	3.3	0	0	0				
PLAY	0	3.4	0	0	3.7		0	0.2	0.6	0	3.2	0	0	3.7				
F.F	0	3.7	0	0	3.7		0	0	0.6	3.5	3.2	0	0	0				

REF. NO.	QR6022						QR6023			QR6024								
MODE	1	2	3	4	5	6	E	C	B	E	C	B						
STOP	4.7	5.0	0	0	0	0	5.0	5.0	4.3	0	0	5.0						
PLAY	4.7	4.9	0	0	0	0	4.8	4§7	4.1	0	0	4.9						
F.F	4.7	4.9	0	0	0	0	5.0	5.0	4.3	0	0	4.9						

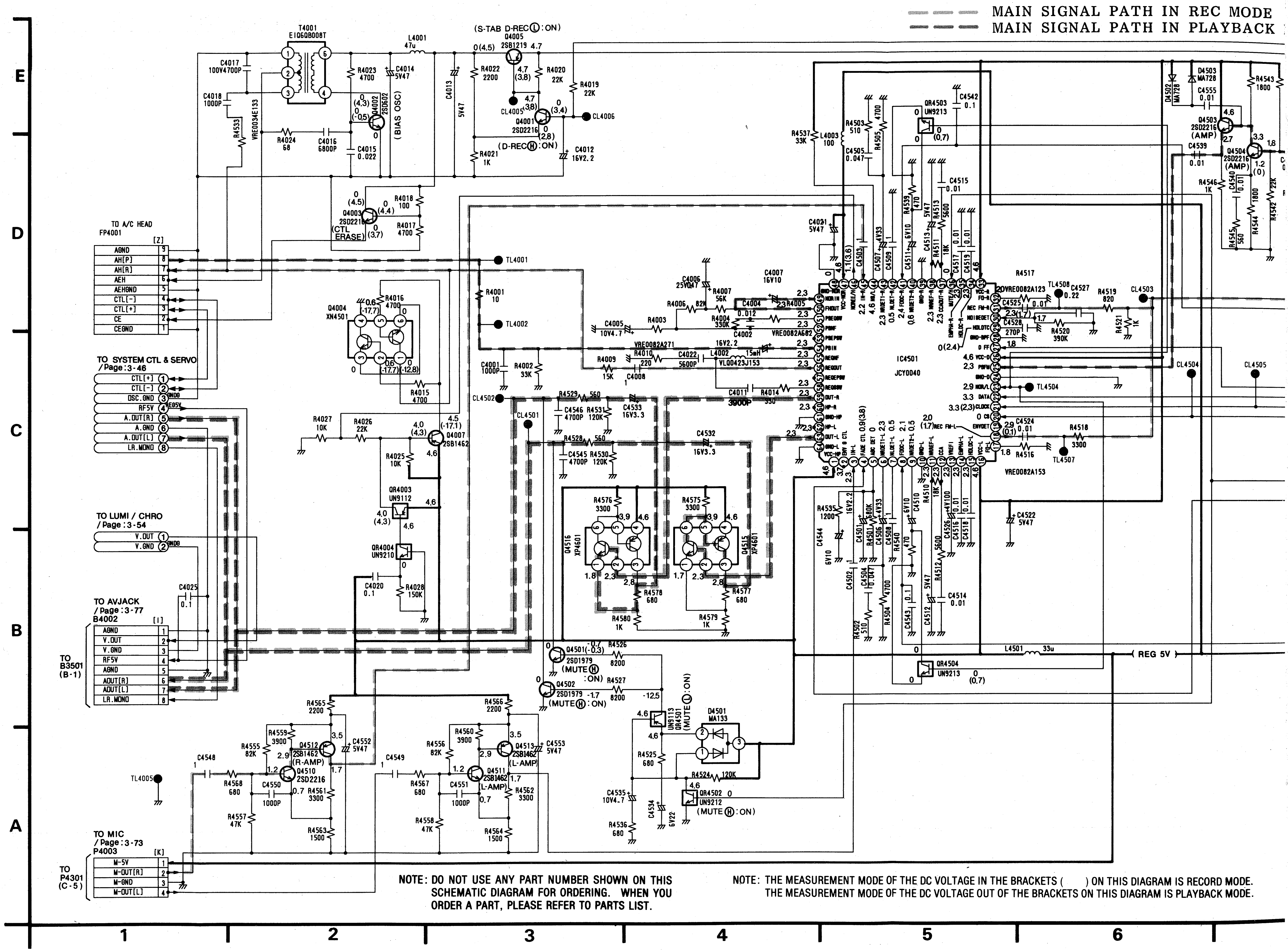
3-21. AUDIO SCHEMATIC DIAGR


E
D
C
B
A
1
2
T4001
E1Q6QB008T
C4017
100V4700P
C4018
1000P
R4533
VRE0034E133
R4024
68
C4016
6800P
TO A/C HEAD
FP4001
[Z]
AGND 9
AH[P] 8
AH[R] 7
AEH 6
AEHGND 5
CTL[-] 4
CTL[+] 3
CE 2
CEGND 1
Q400
XN450
TO SYSTEM CTL & SERVO
/Page:3-46
CTL[+] 1
CTL[-] 2
OSC.GND 3
RF5V 4
A.OUT[R] 5
A.GND 6
A.OUT[L] 7
LR.MONO 8
GNDG
RE05V
R4027
10K
TO LUMI / CHRO
/Page:3-54
V.OUT 1
V.GND 2
C4025
0.1
TO AVJACK
/Page:3-77
B4002
[I]
AGND 1
V.OUT 2
V.GND 3
RF5V 4
AGND 5
AOUT[R] 6
AOUT[L] 7
LR.MONO 8
TO
B3501
(B-1)
R4565
2200
R4559
3900
R4555
82K
3.5
Q4512
2SB1462
(R-AMP)
2.9
1.2
Q4510
2SD2216
1.7
C4548
1
TL4005
R4568
680
C4550
1000P
0.7
R4561
3300
R4557
47K
R4563
1500
TO MIC
/Page:3-73
P4003
[K]
M-5V 1
M-OUT[R] 2
M-GND 3
M-OUT[L] 4
TO
P4301
(C-5)

s DC VOLTAGE CHART (SP MODE)

Q6005					Q6008			6009		
	3	4	5	6	E	C	B	E	C	B
1	2.7	4.6	0	0	4.9	0	4.2	3.3	4.1	0
1	2.7	4.6	0	0	4.9	0	4.2	3.3	4.1	0
1	2.7	4.6	0	0	4.8	0	4.2	3.0	4.8	0
		Q6201								
		E	C	B						
5		3.7	3.7	3.1						
4		3.7	3.7	3.1						
5		3.7	3.7	3.1						
QR6004					QR6007			QR6008		
	3	4	5	6	E	C	B	E	C	B
	3.5	3.4	3.7	3.7	0	0	3.7	0	3.4	0
	3.5	3.4	3.7	3.7	0	0	3.7	0	3.5	0
	3.5	3.4	3.7	3.7	0	0	3.7	0	3.4	0
QR6012					QR6014			QR6015		
	3	4	5		E	C	B	E	C	B
6	0	0	0		0	0	5.5	0	6.6	0
6	0	0	0		0	0	5.5	0	5.8	0
6	0	0	0		0	0	0	0	5.2	0
018		QR6020								
	B	1	2	3	4	5				
2	0.6	3.5	3.3	0	0	0				
2	0.6	0	3.2	0	0	3.7				
	0.6	3.5	3.2	0	0	0				
023		QR6024								
	B	E	C	B						
0	4.3	0	0	5.0						
7	4.1	0	0	4.9						
0	4.3	0	0	4.9						

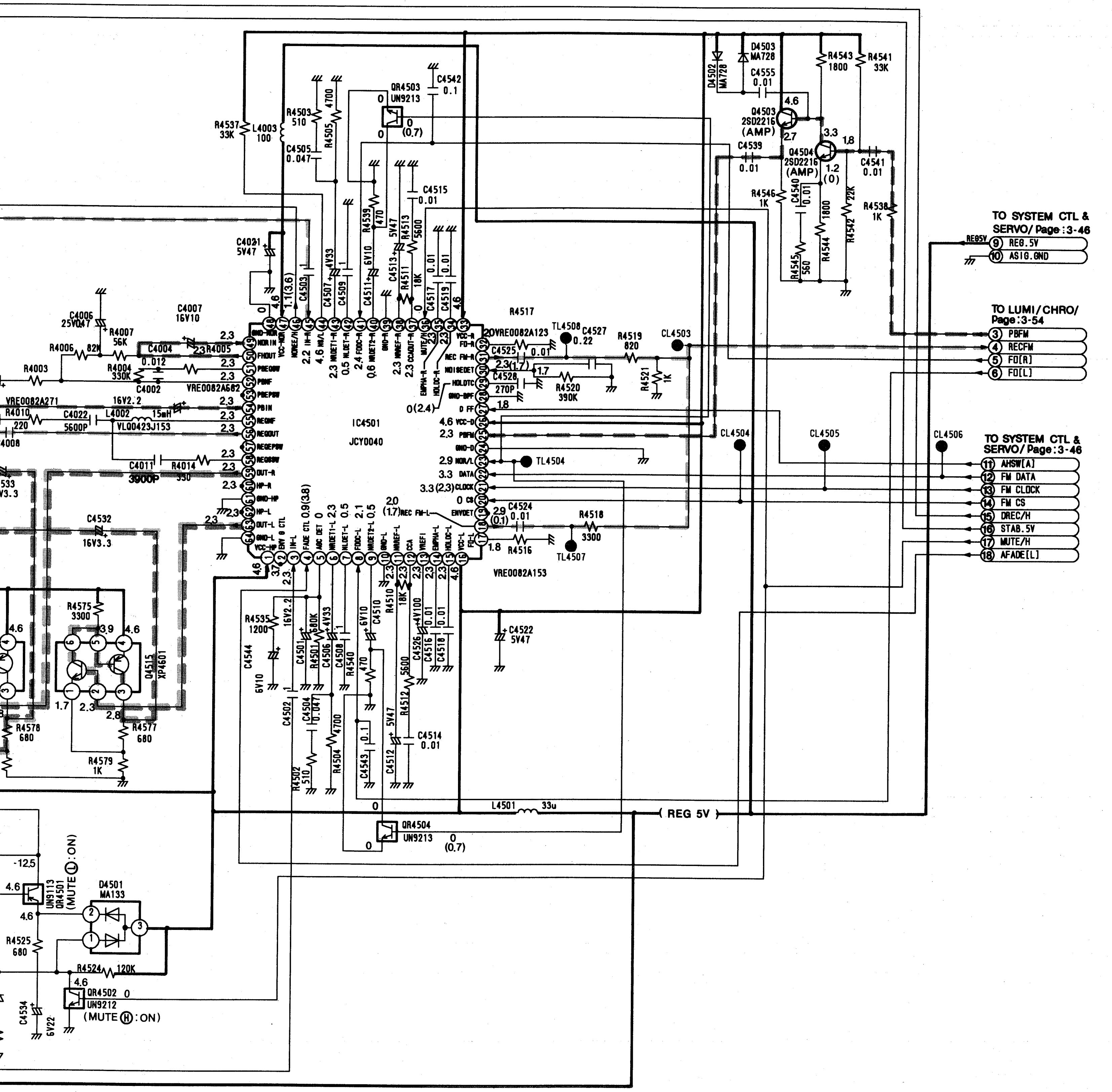
3-21. AUDIO SCHEMATIC DIAGRAM


MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK
E
D
C
B
A
1
2
3
4
5
6
T4001
EIQ6Q8008T
C4017
100V4700P
C4018
1000P
R4533
VRE0034E133
R4024
68
C4016
6800P
C4015
0.022
R4023
4700
Q4002
2SD602
(BIAS OSC)
C4014
5V47
L4001
47u
C4013
5V47
(S-TAB D-REC Ⓛ:ON)
Q4005
2SB1219
R4022
2200
R4020
22K
R4019
22K
CL4005
Q4001
2SD2216
CL4006
(D-REC Ⓗ:ON)
R4021
1K
C4012
16V2.2
Q4003
2SD2216
(CTL ERASE)
R4018
100
R4017
4700
TO A/C HEAD
FP4001
AGND
AH[P]
AH[R]
AEH
AEHGND
CTL[-]
CTL[+]
CE
CEGND
TL4001
R4001
10
TL4002
Q4004
XN4501
R4016
4700
R4015
4700
TO SYSTEM CTL & SERVO
/Page:3-46
CTL(+)
CTL(-)
OSC.GND
RF5V
A.OUT(R)
A.GND
A.OUT(L)
LR.MONO
R4027
10K
R4026
22K
Q4007
2SB1462
R4025
10K
QR4003
UN9112
QR4004
UN9210
C4020
0.1
R4028
150K
TO LUMI / CHRO
/Page:3-54
V.OUT
V.GND
C4025
0.1
TO AVJACK
/Page:3-77
B4002
AGND
V.OUT
V.GND
RF5V
AGND
AOUT[R]
AOUT[L]
LR.MONO
TO B3501 (B-1)
C4001
1000P
R4002
33K
CL4502
CL4501
R4529
560
C4546
4700P
R4531
120K
C4533
16V3.3
R4528
560
C4545
4700P
R4530
120K
C4532
16V3.3
R4576
3300
Q4516
XP4601
R4575
3300
Q4515
XP4601
R4578
680
R4580
1K
R4577
680
R4579
1K
C4005
10V4.7
R4003
C4006
25V0.47
R4006
82K
R4007
56K
C4004
0.012
R4005
R4004
330K
C4002
VRE0082A682
VRE0082A271
R4010
220
C4022
5600P
L4002
15mH
VLQ0423J153
R4009
15K
C4008
1
C4011
3900P
R4014
330
C4007
16V10
C4021
5V47
IC4501
JCY0040
R4517
TL4508
C4527
0.22
R4519
820
CL4503
C4525
0.01
C4526
270P
R4520
390K
R4521
1K
VRE0082A123
TL4504
C4524
0.01
R4518
3300
R4516
TL4507
VRE0082A153
C4522
5V47
CL4504
CL4505
R4537
33K
L4003
100
R4503
510
R4505
4700
QR4503
UN9213
C4542
0.1
C4505
0.047
C4515
0.01
D4502
MA728
D4503
MA728
C4555
0.01
R4543
1800
Q4503
2SD2216
(AMP)
Q4504
2SD2216
(AMP)
C4539
0.01
R4546
1K
R4545
560
R4544
1800
R4542
22K
R4535
1200
C4544
6V10
R4540
C4514
0.01
R4502
510
R4504
4700
L4501
33u
REG 5V
QR4504
UN9213
Q4501
2SD1979
(MUTE Ⓗ:ON)
R4526
8200
Q4502
2SD1979
(MUTE Ⓗ:ON)
R4527
8200
QR4501
UN9113
(MUTE Ⓛ:ON)
D4501
MA133
R4525
680
R4524
120K
QR4502
UN9212
(MUTE Ⓗ:ON)
C4535
10V4.7
C4534
6V22
R4536
680
R4565
2200
R4559
3900
Q4512
2SB1462
(R-AMP)
C4552
5V47
R4555
82K
C4548
1
R4568
680
C4550
1000P
Q4510
2SD2216
R4561
3300
R4557
47K
R4563
1500
TL4005
R4566
2200
R4560
3900
Q4513
2SB1462
(L-AMP)
C4553
5V47
R4556
82K
C4549
1
R4567
680
C4551
1000P
Q4511
2SB1462
(L-AMP)
R4562
3300
R4558
47K
R4564
1500
TO MIC
/Page:3-73
P4003
M-5V
M-OUT[R]
M-GND
M-OUT[L]
TO P4301 (C-5)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE.

MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE


TO SYSTEM CTL & SERVO/ Page :3-46
⑨ REG.5V
⑩ ASIG.GND
TO LUMI/CHRO/ Page:3-54
③ PBFM
④ RECFM
⑤ FO[R]
⑥ FO[L]
TO SYSTEM CTL & SERVO/ Page:3-46
⑪ AHSW[A]
⑫ FM DATA
⑬ FM CLOCK
⑭ FM CS
⑮ DREC/H
⑯ STAB.5V
⑰ MUTE/H
⑱ AFADE[L]
IC4501
JCY0040
QR4503 UN9213
Q4503 2SD2216 (AMP)
Q4504 2SD2216 (AMP)
D4502 MA728
D4503 MA728
CL4503
CL4504
CL4505
CL4506
TL4504
TL4507
TL4508
Q4515 XP4601
L4501 33u
REG 5V
QR4504 UN9213
QR4501 UN9113 (MUTE Ⓛ:ON)
D4501 MA133
QR4502 UN9212 (MUTE Ⓗ:ON)

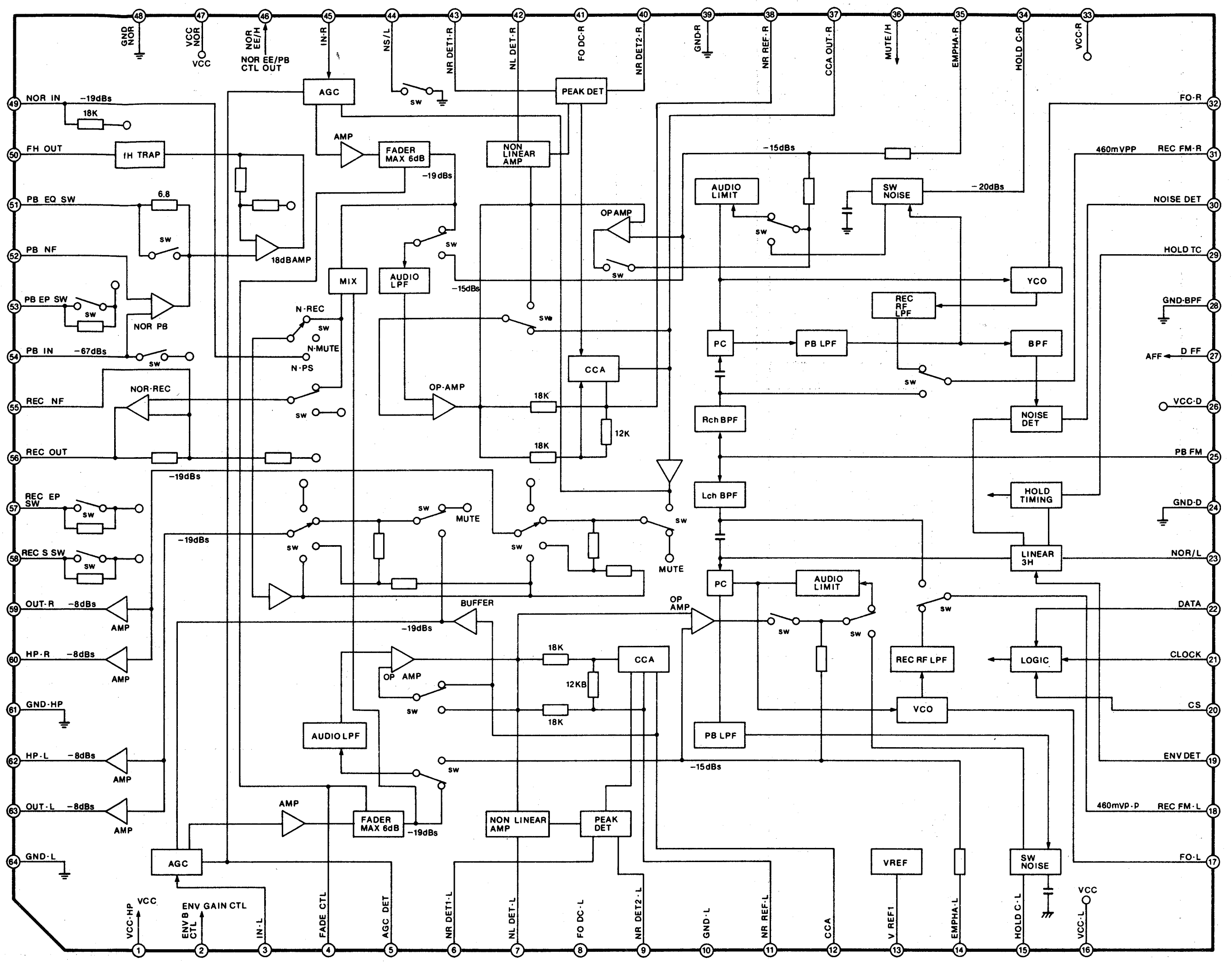
ON THIS
IEN YOU
IST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE.
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE.

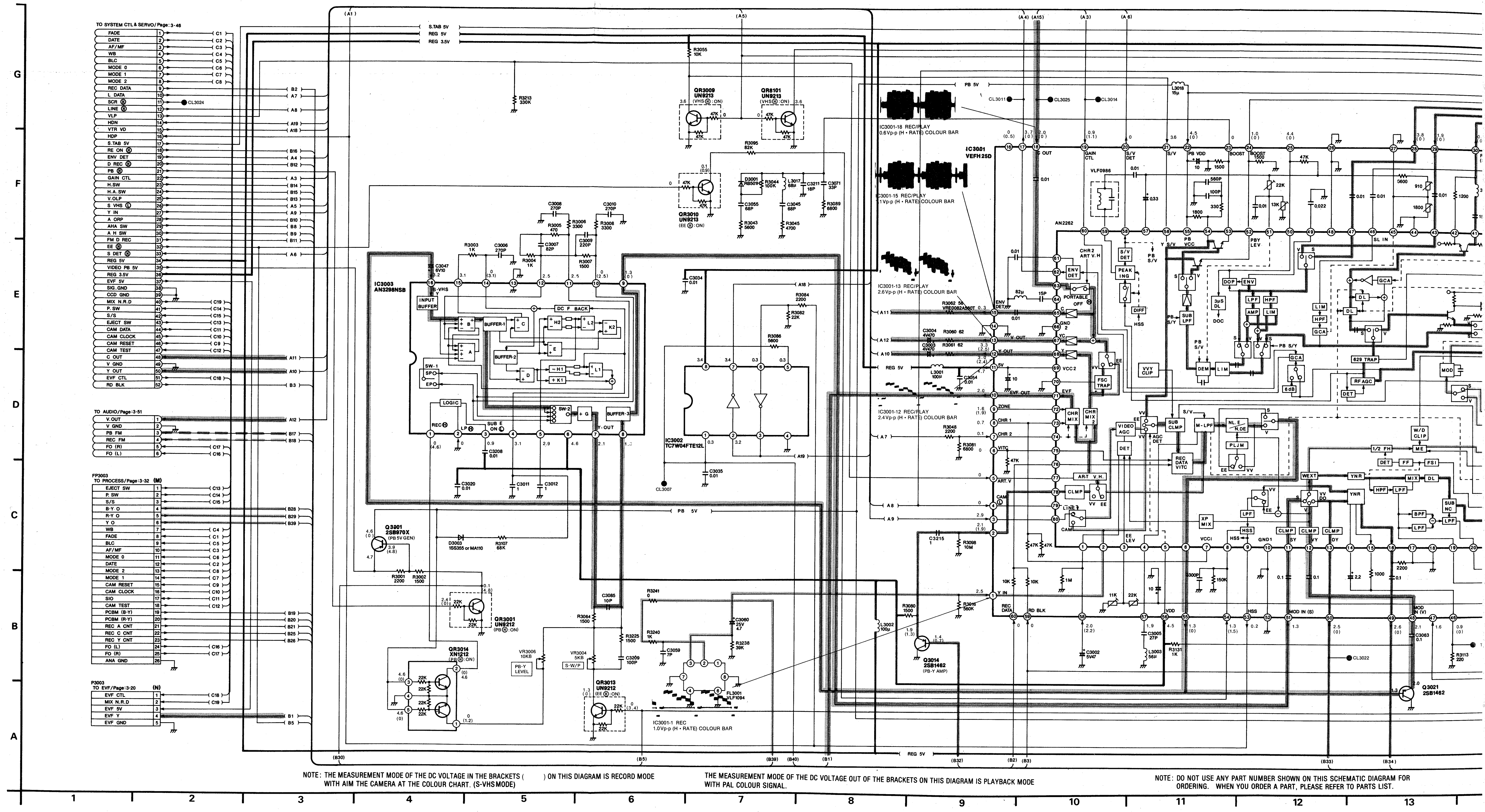
4 5 6 7

IC BLOCK

IC4501 (JCY0040)


GND NOR
VCC NOR
NOR EE/PB CTL OUT
IN-R
NS/L
NR DET1-R
NL DET-R
FO DC-R
NR DET2-R
GND-R
NR REF-R
CCA OUT-R
MUTE/H
EMPHA-R
HOLD C-R
VCC-R
NOR IN
FH OUT
PB EQ SW
PB NF
PB EP SW
PB IN
REC NF
REC OUT
REC EP SW
REC S SW
OUT-R
HP-R
GND-HP
HP-L
OUT-L
GND-L
FO-R
REC FM-R
NOISE DET
HOLD TC
GND-BPF
D FF
VCC-D
PB FM
GND-D
NOR/L
DATA
CLOCK
CS
ENV DET
REC FM-L
FO-L
AGC
FADER MAX 6dB
NON LINEAR AMP
PEAK DET
AUDIO LIMIT
SW NOISE
OP AMP
MIX
AUDIO LPF
IH TRAP
18dBAMP
N-REC
N-MUTE
N-PS
CCA
Rch BPF
Lch BPF
PB LPF
REC RF LPF
YCO
BPF
NOISE DET
HOLD TIMING
LINEAR 3H
LOGIC
VCO
PC
BUFFER
VREF
VCC-HP
ENV GAIN CTL
ENV B CTL
IN-L
FADE CTL
AGC DET
NR DET1-L
NL DET-L
FO DC-L
NR DET2-L
GND-L
NR REF-L
CCA
V REF1
EMPHA-L
HOLD C-L
VCC-L

3-22. LUMINANCE/CHROMINANCE & HEAD AMP SCHEMATIC DIAGRAM

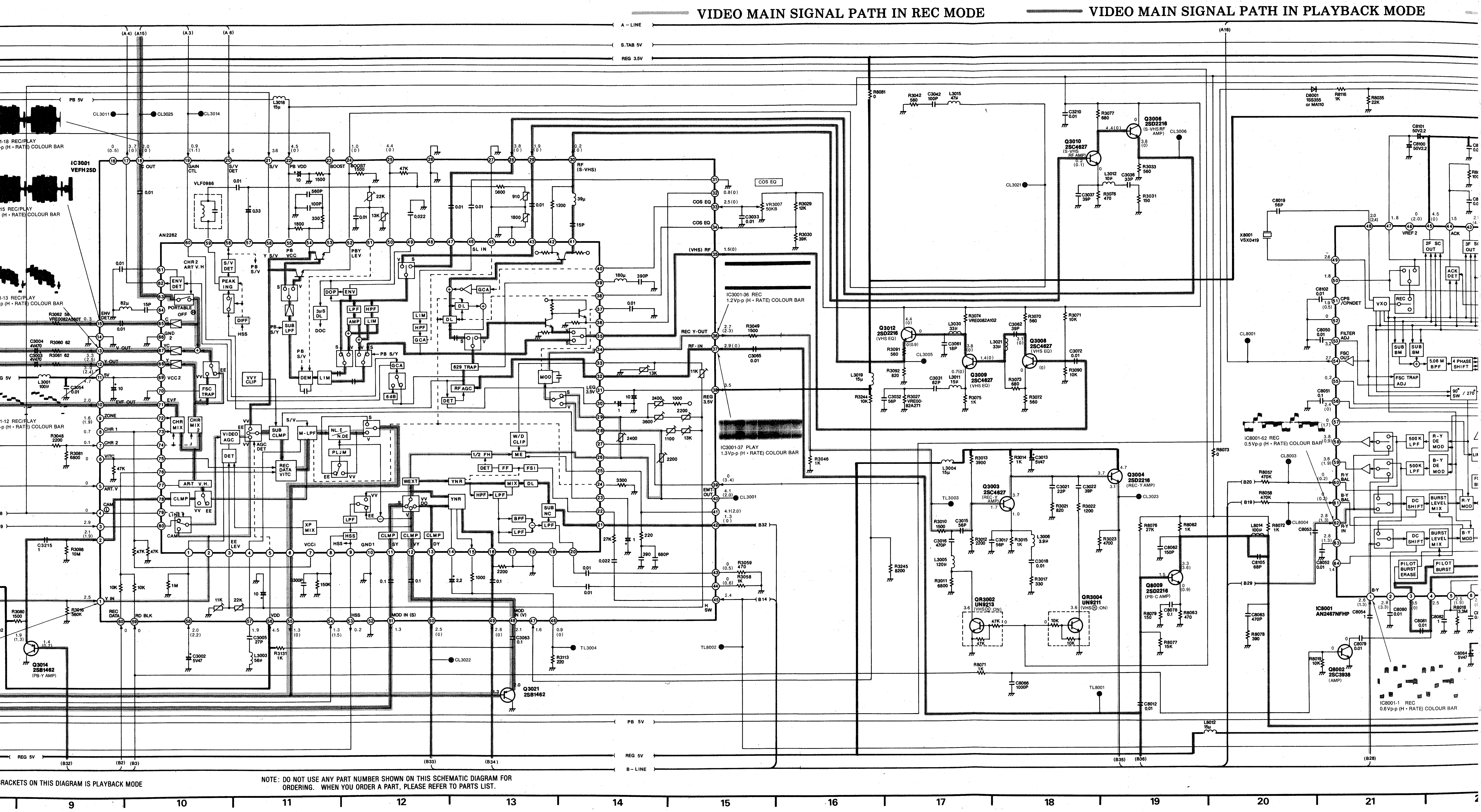

TO SYSTEM CTL & SERVO/Page:3-46
FADE
DATE
AF/MF
WB
BLC
MODE 0
MODE 1
MODE 2
REC DATA
L DATA
SCR
LINE
VLP
HDN
VTR VD
HDP
S.TAB 5V
RE ON
ENV DET
D REC
PB
GAIN CTL
H.SW
H.A.SW
V.OLP
S VHS
Y IN
A ORP
AHA SW
A H SW
FM D REC
EE
S DET
REG 5V
VIDEO PB 5V
REG 3.5V
EVF 5V
SIG.GND
CCD GND
MIX N.R.D
P. SW
S/S
EJECT SW
CAM DATA
CAM CLOCK
CAM RESET
CAM TEST
C OUT
V GND
Y OUT
EVF CTL
RD BLK
CL3024
TO AUDIO/Page:3-51
V.OUT
V GND
PB FM
REC FM
FO (R)
FO (L)
FP3003
TO PROCESS/Page:3-32
B-Y O
R-Y O
Y O
SIO
PCBM (B-Y)
PCBM (R-Y)
REC A CNT
REC C CNT
REC Y CNT
ANA GND
P3003
TO EVF/Page:3-20
EVF CTL
MIX N.R.D
EVF 5V
EVF Y
EVF GND
S.TAB 5V
REG 5V
REG 3.5V
PB 5V
R3213 330K
R3055 10K
QR3009 UN9213 (VHS Ⓗ:ON)
QR8101 UN9213 (VHS Ⓗ:ON)
QR3010 UN9213 (EE Ⓗ:ON)
R3095 82K
D3001 RB501H
R3044 100K
L3017 68μ
C3211 18P
C3071 33P
C3055 68P
C3045 68P
R3089 6800
R3043 5600
R3045 4700
C3008 270P
C3010 270P
R3005 470
R3006 3300
R3008 3300
R3003 1K
C3006 270P
R3004 1K
C3007 82P
C3009 220P
R3007 1500
C3047 6V10
IC3003 AN3298NSB
S-VHS
INPUT BUFFER
BUFFER-1
BUFFER-2
DC F BACK
SW-1
SPO
EPO
LOGIC
SW-2
BUFFER-3
Y-OUT
REC
LP
SUB E ON
C3208 0.01
C3020 0.01
C3011 1
C3012 1
C3034 0.01
R3084 2200
R3082 22K
R3086 5600
IC3002 TC7W04FTE12L
C3035 0.01
CL3007
Q3001 2SB970X (PB 5V GEN)
D3003 1SS355 or MA110
R3107 68K
R3001 2200
R3002 1500
QR3001 UN9212 (PB Ⓗ:ON)
QR3014 XN1212 (PB Ⓗ:ON)
VR3006 10KB
PB-Y LEVEL
VR3004 5KB
S-W/P
C3085 10P
R3064 1500
R3241 0
R3225 1500
C3209 100P
R3240 1K
C3059 7P
C3060 25V 4.7
R3238 39K
QR3013 UN9212 (EE Ⓗ:ON)
FL3001 VLF1094
IC3001-1 REC 1.0Vp-p (H • RATE) COLOUR BAR
IC3001-18 REC/PLAY 0.6Vp-p (H • RATE) COLOUR BAR
IC3001-15 REC/PLAY 1.1Vp-p (H • RATE) COLOUR BAR
IC3001-13 REC/PLAY 2.6Vp-p (H • RATE) COLOUR BAR
IC3001-12 REC/PLAY 2.4Vp-p (H • RATE) COLOUR BAR
IC3001 VEFH25D
CL3011
CL3025
CL3014
L3018 15μ
VLF0986
AN2262
R3062 56
VRE0082A560T
C3004 4V470
C3003 4V470
R3060 62
R3061 62
L3001 100μ
C3054 0.01
R3048 2200
R3081 6800
C3215 1
R3098 10M
R3080 1500
R3016 560K
L3002 100μ
Q3014 2SB1462 (PB-Y AMP)
C3002 5V47
C3005 27P
L3003 56μ
R3131 1K
CL3022
R3113 220
C3063 0.1
Q3021 2SB1462
OUT
GAIN CTL
S/V DET
S/V
PB VDD
BOOST
ENV DET
CHR 2 ART V. H
PORTABLE OFF
GND 2
VCC 2
FSC TRAP
EVF
CHR MIX
CHR MIX 2
ZONE
CHR 1
CHR 2
VITC
ART.V
CAM
Y IN
REC DATA
RD BLK
ART V.H.
CLMP
LINE
PEAK ING
DIFF
HSS
SUB LPF
PB S/V
DEM
LIM
VVY CLIP
VIDEO AGC
DET
SUB CLMP
M-LPF
NL E
N.DE
PLJM
AGC DET
REC DATA VITC
DOP
ENV
3μS DL
DOC
LPF
HPF
AMP
GCA
6dB
PB S/Y
SL IN
629 TRAP
RF AGC
MOD
W/D CLIP
1/2 FH
ME
FF
FSI
MIX
WEXT
YNR
SUB NC
BPF
XP MIX
VCCI
GND1
SY
DY
MOD IN (S)
MOD IN (V)
VDD
(A1) (A5) (A4) (A15) (A3) (A6)
(B30) (B5) (B39) (B40) (B1) (B32) (B2) (B3) (B33) (B34)
G F E D C B A
1 2 3 4 5 6 7 8 9 10 11 12 13

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH AIM THE CAMERA AT THE COLOUR CHART. (S-VHS MODE)

THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

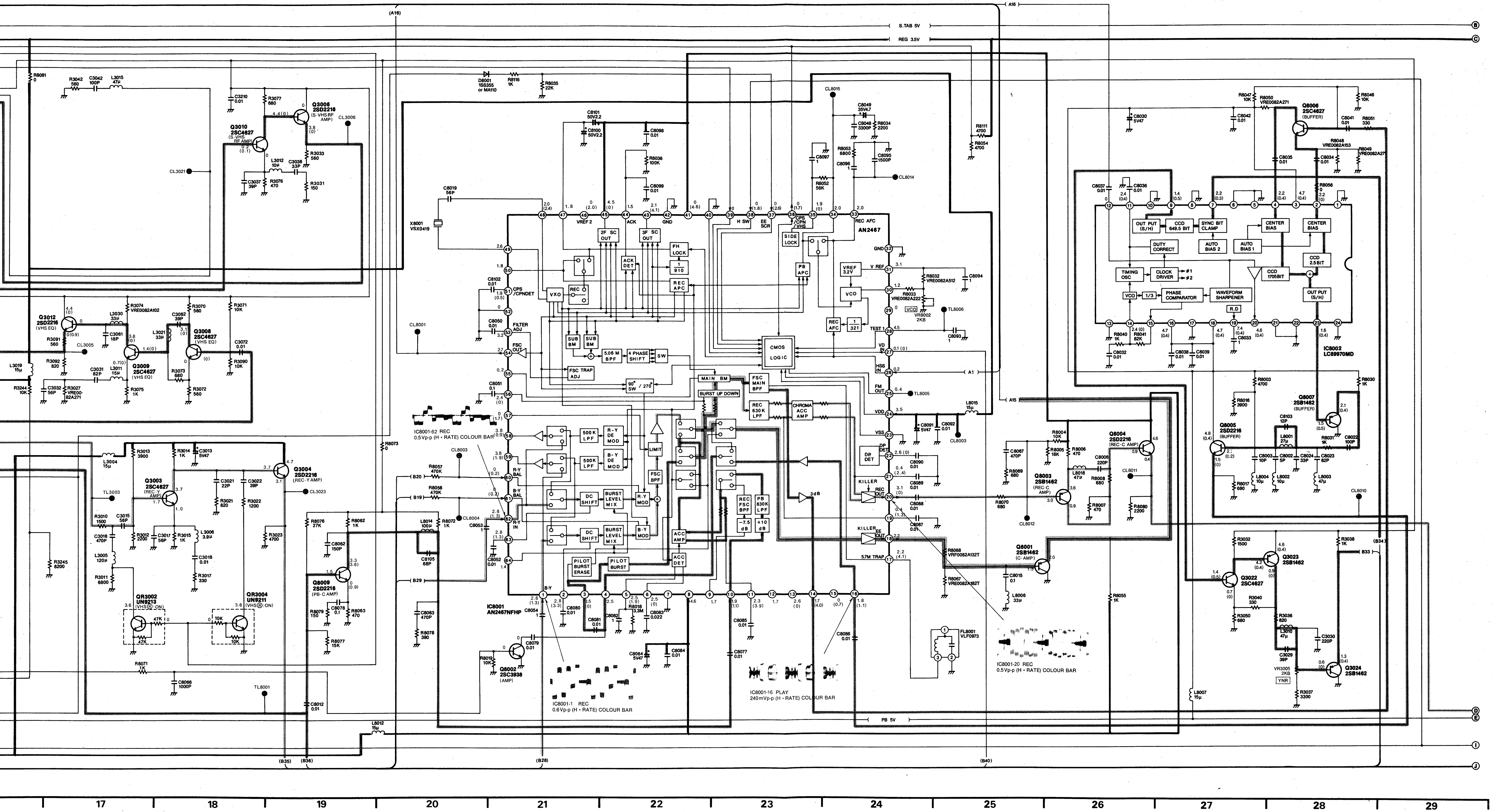
Back Page:
AUDIO Section


VIDEO MAIN SIGNAL PATH IN REC MODE
VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE
A-LINE
S.TAB 5V
REG 3.5V
PB 5V
REG 5V
B-LINE
IC3001
VEFH25D
AN2262
IC3001-36 REC
1.2Vp-p (H • RATE) COLOUR BAR
IC3001-37 PLAY
1.3Vp-p (H • RATE) COLOUR BAR
COS EQ
Q3006
2SD2216
Q3010
2SC4627
Q3012
2SD2216
Q3009
2SC4627
Q3008
2SC4627
Q3003
2SC4627
Q3004
2SD2216
QR3002
UN9213
QR3004
UN9211
Q3014
2SB1462
Q3021
2SB1462
Q8009
2SD2216
IC8001
AN2467NFHP
Q8002
2SC3938
X8001
VSX0419
IC8001-62 REC
0.5Vp-p (H • RATE) COLOUR BAR
IC8001-1 REC
0.6Vp-p (H • RATE) COLOUR BAR
9
10
11
12
13
14
15
16
17
18
19
20
21

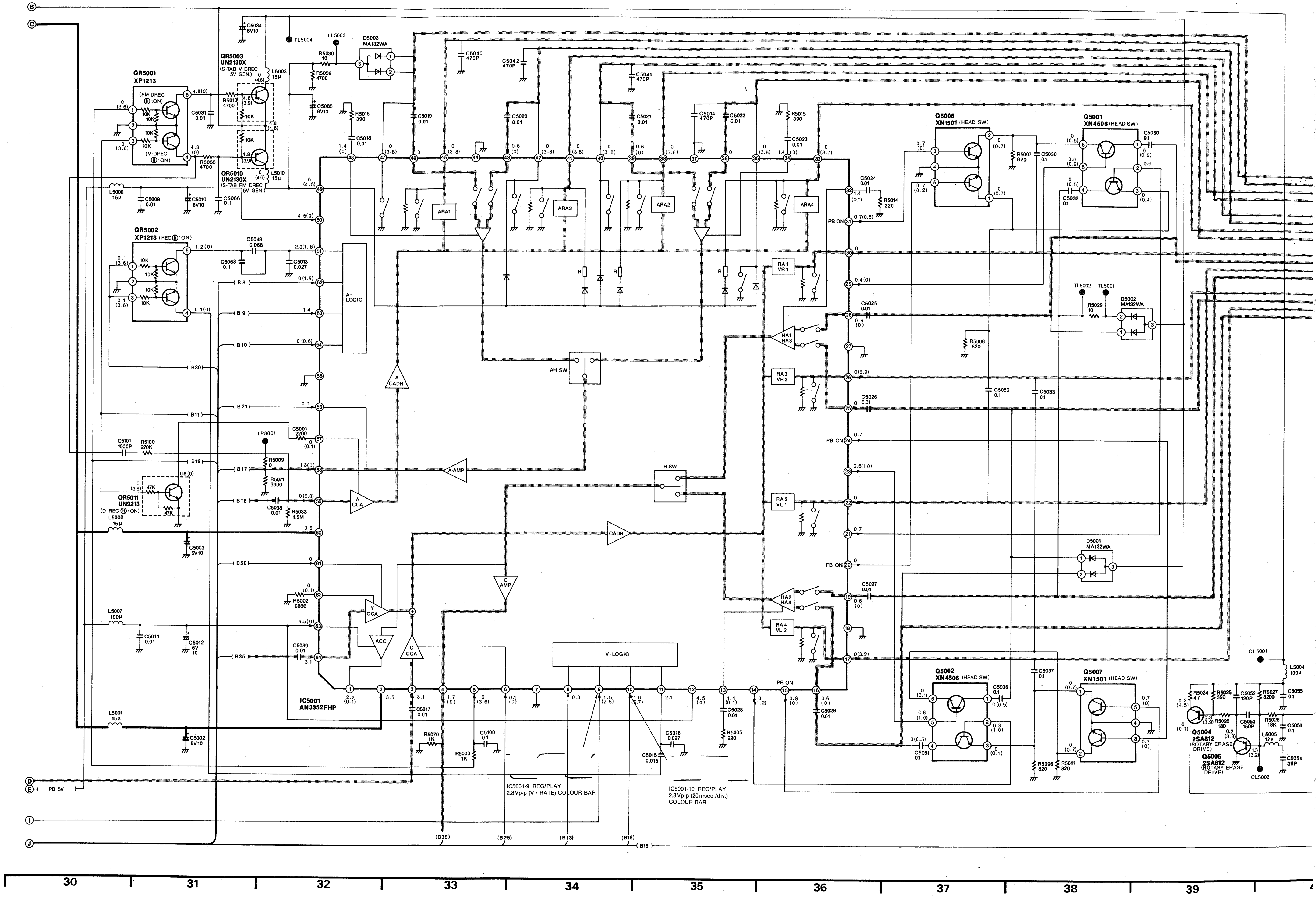
RACKETS ON THIS DIAGRAM IS PLAYBACK MODE

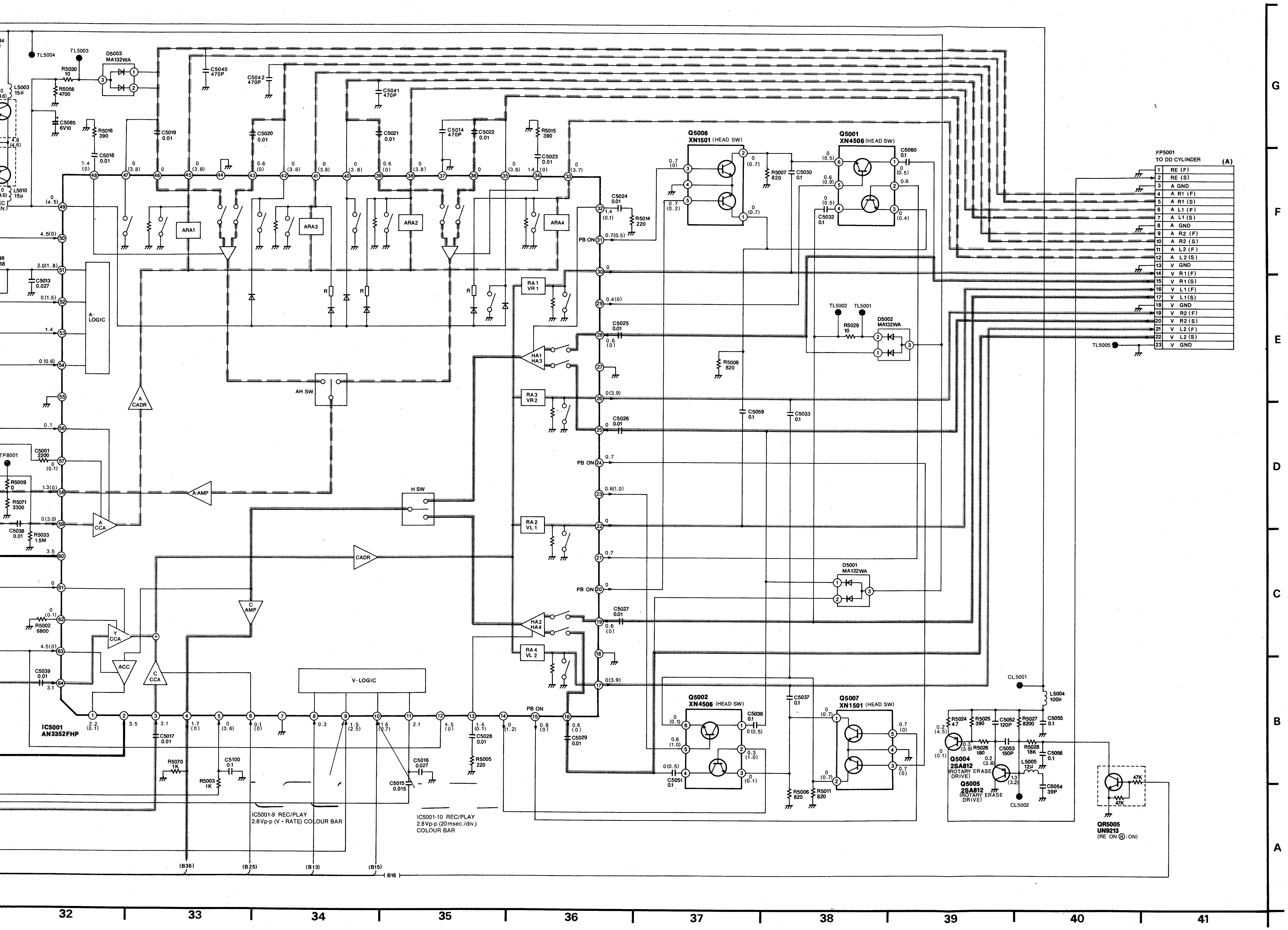
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

L PATH IN REC MODE — VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE — AUDIO MAIN SIGNAL PATH IN REC MODE — AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE



S.TAB 5V
REG 3.5V
PB 5V
Q3006 2SD2216 (S-VHSRF AMP)
Q3010 2SC4627 (S-VHS RF AMP)
Q3012 2SD2216 (VHS EQ)
Q3009 2SC4627 (VHS EQ)
Q3008 2SC4627 (VHS EQ)
Q3003 2SC4627 (REC-Y AMP)
Q3004 2SD2216 (REC-Y AMP)
QR3002 UN9213 (VHS(S)-ON)
QR3004 UN9211 (VHS(S)-ON)
Q8009 2SD2216 (PB-C AMP)
Q8002 2SC3938 (AMP)
X8001 VSX0419
IC8001 AN2467NFHP
AN2467
VREF 2
ACK
GND
H SW
EE SCR
CPS /CPN /VHS
REC AFC
2F SC OUT
3F SC OUT
ACK DET
FH LOCK
1/910
REC APC
PB APC
SIDE LOCK
VREF 3.2V
VCO
VXO
REC AFC
1/321
SUB BM
5.06 M BPF
4 PHASE SHIFT
SW
FSC TRAP ADJ
90° / 270° SW
CMOS LOGIC
MAIN BM
BURST UP DOWN
FSC MAIN BPF
REC 630K LPF
CHROMA ACC AMP
500K LPF
R-Y DE MOD
B-Y DE MOD
LIMIT
FSC BPF
DC SHIFT
BURST LEVEL MIX
R-Y MOD
B-Y MOD
PILOT BURST ERASE
PILOT BURST
ACC AMP
ACC DET
REC FSC BPF
PB 630K LPF
-7.5 dB
+10 dB
3dB
DP DET
KILLER
REC OUT
EE OUT
57M TRAP
CPS /CPNDET
FILTER ADJ
FSC OUT
B-Y
R-Y BAL
B-Y BAL
R-Y IN
B-Y IN
TEST 1
VD IN
HSS IN
FM OUT
VDD
VSS
GND
V REF
IC8001-62 REC 0.5Vp-p (H • RATE) COLOUR BAR
IC8001-1 REC 0.6Vp-p (H • RATE) COLOUR BAR
IC8001-16 PLAY 240mVp-p (H • RATE) COLOUR BAR
IC8001-20 REC 0.5Vp-p (H • RATE) COLOUR BAR
FL8001 VLF0973
Q8004 2SD2216 (REC-C AMP)
Q8003 2SB1462 (REC-C AMP)
Q8001 2SB1462 (C-AMP)
IC8002 LC89970MD
OUT PUT (S/H)
CCD 649.5 BIT
SYNC BIT CLAMP
CENTER BIAS
AUTO BIAS 2
AUTO BIAS 1
DUTY CORRECT
CCD 2.5 BIT
TIMING OSC
CLOCK DRIVER
CCD 1705BIT
VCO
1/3
PHASE COMPARATOR
WAVEFORM SHARPENER
R.D
Q8006 2SC4627 (BUFFER)
Q8005 2SD2216 (BUFFER)
Q8007 2SB1462 (BUFFER)
Q3023 2SB1462
Q3022 2SC4627
Q3024 2SB1462
VR3005 2KB
YNR
VR8002 2KB
(A16)
(A15)
A1
B20
B19
B29
(B28)
(B35)
(B36)
(B40)
(B34)
B33
B
C
E
D
I
J
17
18
19
20
21
22
23
24
25
26
27
28
29


QR5001 XP1213
(FM DREC Ⓗ:ON)
(V-DREC Ⓗ:ON)
QR5003 UN2130X
(S-TAB V DREC 5V GEN.)
QR5010 UN2130X
(S-TAB FM DREC 5V GEN.)
QR5002 XP1213 (REC Ⓗ:ON)
QR5011 UN9213
(D REC Ⓗ:ON)
TL5004
TL5003
D5003 MA132WA
TP8001
A-LOGIC
V-LOGIC
ARA1
ARA2
ARA3
ARA4
AH SW
H SW
A CADR
A AMP
A CCA
Y CCA
ACC
C CCA
C AMP
CADR
RA1 VR1
RA3 VR2
RA2 VL1
RA4 VL2
HA1 HA3
HA2 HA4
PB ON
Q5006 XN1501 (HEAD SW)
Q5001 XN4506 (HEAD SW)
Q5002 XN4506 (HEAD SW)
Q5007 XN1501 (HEAD SW)
TL5002
TL5001
D5002 MA132WA
D5001 MA132WA
CL5001
CL5002
Q5004 2SA812 (ROTARY ERASE DRIVE)
Q5005 2SA812 (ROTARY ERASE DRIVE)
IC5001 AN3352FHP
IC5001-9 REC/PLAY 2.8Vp-p (V • RATE) COLOUR BAR
IC5001-10 REC/PLAY 2.8Vp-p (20msec./div.) COLOUR BAR
PB 5V
B
C
D
E
I
J
30
31
32
33
34
35
36
37
38
39


IC5001
AN3352FHP
A·LOGIC
V·LOGIC
ARA1
ARA2
ARA3
ARA4
AH SW
H SW
A CADR
A·AMP
A CCA
CADR
C AMP
Y CCA
ACC
C CCA
RA1 VR1
RA3 VR2
RA2 VL1
RA4 VL2
HA1 HA3
HA2 HA4
PB ON
Q5006
XN1501 (HEAD SW)
Q5001
XN4506 (HEAD SW)
Q5002
XN4506 (HEAD SW)
Q5007
XN1501 (HEAD SW)
D5003
MA132WA
D5002
MA132WA
D5001
MA132WA
TL5004
TL5003
TL5002
TL5001
TL5005
TP8001
CL5001
CL5002
L5004
100µ
L5005
12µ
Q5004
2SA812
(ROTARY ERASE DRIVE)
Q5005
2SA812
(ROTARY ERASE DRIVE)
QR5005
UN9213
(RE ON ⓗ:ON)
FP5001
TO DD CYLINDER
(A)
1 RE (F)
2 RE (S)
3 A GND
4 A R1 (F)
5 A R1 (S)
6 A L1 (F)
7 A L1 (S)
8 A GND
9 A R2 (F)
10 A R2 (S)
11 A L2 (F)
12 A L2 (S)
13 V GND
14 V R1 (F)
15 V R1 (S)
16 V L1 (F)
17 V L1 (S)
18 V GND
19 V R2 (F)
20 V R2 (S)
21 V L2 (F)
22 V L2 (S)
23 V GND
IC5001-9 REC/PLAY
2.8Vp-p (V · RATE) COLOUR BAR
IC5001-10 REC/PLAY
2.8Vp-p (20msec./div.)
COLOUR BAR
(B36)
(B25)
(B13)
(B15)
B16
G
F
E
D
C
B
A
32
33
34
35
36
37
38
39
40
41

Next Page:
VTR MAIN Section

VTR MAIN C.B.A.

Integrated Circuit	
IC3001	B-5
IC3002	C-11
IC3003	B-12
IC4501	E-10
IC5001	B-9
IC6001	E-12
IC6002	D-2
IC6003	C-2
IC6004	D-11
IC6005	F-14
IC6006	F-4
IC6007	E-14
IC6008	E-14
IC8001	C-12
IC8002	B-13
Transistor	
Q3001	A-13
Q3003	B-10
Q3004	B-10
Q3006	C-10
Q3008	C-11
Q3009	C-11
Q3010	C-10
Q3012	C-10
Q3014	B-11
Q3021	B-11
Q3022	C-13
Q3023	C-13
Q3024	C-13
Q4001	C-6
Q4002	D-9
Q4003	C-9
Q4004	D-10
Q4005	C-6
Q4007	C-10
Q4501	F-10
Q4502	E-10
Q4503	D-9
Q4504	D-9
Q4510	F-10
Q4511	F-10
Q4512	E-10
Q4513	E-10
Q4515	D-10
Q4516	D-10
Q5001	A-9
Q5002	A-9
Q5004	A-10
Q5005	A-10
Q5006	A-9
Q5007	A-9
Q6002	F-13
Q6004	F-12
Q6005	F-12
Q6008	B-14
Q6009	B-14
Q6010	D-3
Q6011	D-3
Q6201	D-13
Q8001	C-3
Q8002	C-12
Q8003	C-4
Q8004	C-3
Q8005	A-2
Q8006	A-13
Q8007	A-2
Q8009	D-10
Transistor & Resistor	
QR3001	D-11
QR3002	B-10
QR3004	B-10
QR3009	C-4
QR3010	B-11
QR3013	B-12
QR3014	A-12
QR4003	C-9
QR4004	D-9
QR4501	F-10
QR4502	F-11
QR4503	F-11
QR4504	D-11
QR5001	C-9
QR5002	B-6
QR5003	C-6
QR5005	A-10
QR5010	C-6
QR5011	C-9
QR6001	D-4
QR6003	F-3
QR6004	E-14
QR6007	C-2
QR6008	D-3
QR6010	E-11
QR6012	E-3
QR6014	F-12
QR6015	D-14
QR6016	D-3
QR6018	D-4
QR6020	F-12
QR6022	D-4
QR6023	D-4
QR6024	D-3
QR8101	C-4
Diode	
D3001	A-11
D3003	A-12
D4501	F-10
D4502	C-9
D4503	C-9
D5001	B-7
D5002	A-7
D5003	B-6
D6008	D-2
D6010	D-4
D6011	E-11
D6012	E-11
D6013	E-2
D6014	D-2
D6015	F-14
D6016	B-13
D6017	C-14
D6018	C-14
D6020	D-4
D6100	F-14
D6201	D-13
D8001	B-12
Transformer	
T4001	D-6
Test Point	
CL3001	C-5
CL3005	C-5
CL3006	C-5
CL3007	C-4
CL3011	B-4
CL3014	B-4
CL3021	A-3
CL3022	B-5
CL3023	C-5
CL3025	C-4
CL4005	C-6
CL4006	C-7
CL4501	F-1
CL4502	E-5
CL4503	C-5
CL4504	E-4
CL4505	E-4
CL4506	E-4
CL5001	C-6
CL5002	A-6
CL6001	E-4
CL6002	E-4
CL6005	E-3
CL6006	E-3
CL6007	C-1
CL6020	E-3
CL6021	E-3
CL6022	E-3
CL6023	E-4
CL6024	D-2
CL6024	D-12
CL6204	B-6
CL6206	D-3
CL6207	D-3
CL6208	D-2
CL6209	E-5
CL6211	D-2
CL6212	C-1
CL6214	C-2
CL6215	E-4
CL6301	F-4
CL6306	F-12
CL8001	B-2
CL8003	C-3
CL8004	C-2
CL8010	A-2
CL8011	B-3
CL8012	C-4
CL8014	B-3
CL8015	B-3
TL3003	C-4
TL3004	B-5
TL4001	D-6
TL4002	E-6
TL4005	C-7
TL4504	E-4
TL4507	C-5
TL4508	D-5
TL5001	A-7
TL5002	A-7
TL5003	C-6
TL5004	C-5
TL5005	A-7
TL8001	B-2
TL8002	C-5
TL8003	B-2
TL8005	C-4
TL8006	B-3
TP8001	B-7
Adjustment	
VR3004	B-3
VR3005	B-3
VR3006	A-4
VR3007	C-4
VR8002	C-3
Connector	
B4002	F-5
B6001	E-1
B6004	E-3
FP3003	E-2
FP4001	D-5
FP5001	A-6
FP6001	F-2
FP6002	F-3
FP6005	D-13
FP6006	F-1
FP6007	B-1
P3003	A-3
P4003	F-5
P6003	A-14
Crystal Oscillator	
X6001	E-4
X6002	D-2
X8001	B-3
Filter	
FL3001	C-3
FL8001	C-4
Coil	
L3001	C-11
L3002	A-11
L3003	B-11
L3004	C-11
L3005	B-10
L3006	B-11
L3010	C-13
L3011	C-10
L3012	C-11
L3015	A-11
L3017	A-11
L3018	A-11
L3019	B-11
L3021	C-11
L3030	C-10
L4001	C-6
L4002	E-5
L4003	E-10
L4501	E-11
L5001	C-10
L5002	C-6
L5003	C-6
L5004	B-10
L5005	A-10
L5007	B-10
L5008	C-9
L5010	B-10
L6001	C-1
L6002	C-14
L6003	B-1
L8001	A-2
L8002	A-2
L8003	B-3
L8004	A-2
L8006	D-4
L8007	B-2
L8012	C-5
L8014	D-10
L8015	B-11
L8018	C-3
Capacitor	
C3002	C-5
C3003	C-5
C3004	C-4
C3005	B-11
C3006	B-11
C3007	B-11
C3008	A-12
C3009	B-12
C3010	B-12
C3011	A-12
C3012	A-12
C3013	C-5
C3015	B-10
C3016	B-10
C3017	B-10
C3018	B-11
C3020	B-12
C3021	B-10
C3022	B-10
C3029	C-13
C3030	C-13
C3031	C-10
C3032	C-10
C3033	B-4
C3034	C-11
C3035	D-11
C3036	C-11
C3037	C-10
C3042	A-11
C3045	A-11
C3047	A-11
C3054	A-11
C3055	A-11
C3059	C-3
C3060	C-3
C3061	C-10
C3062	C-11
C3063	B-11
C3065	C-10
C3071	A-11
C3072	C-11
C3085	A-12
C3208	A-12
C3209	A-12
C3210	A-10
C3211	A-11
C3215	B-11
C4001	E-5
C4002	E-5
C4004	E-10
C4005	D-10
C4006	D-10
C4007	E-5
C4008	E-10
C4011	E-10
C4012	C-6
C4013	D-5
C4014	D-6
C4015	D-9
C4016	D-9
C4017	C-6
C4018	D-6
C4020	C-9
C4021	E-5
C4022	E-5
C4025	F-5
C4501	D-11
C4502	E-10
C4503	E-10
C4504	E-4
C4505	E-4
C4506	E-5
C4507	E-4
C4508	D-11
C4509	E-11
C4510	D-11
C4511	E-11
C4512	D-5
C4513	F-5
C4514	D-11
C4515	F-11
C4516	D-11
C4517	E-11
C4518	D-11
C4519	E-11
C4522	D-5
C4524	D-11
C4525	E-11
C4526	D-5
C4527	E-11
C4528	E-11
C4532	D-10
C4533	D-10
C4534	E-5
C4535	F-4
C4539	C-9
C4540	D-9
C4541	C-9
C4542	E-11
C4543	D-11
C4544	D-10
C4545	F-10
C4546	E-10
C4548	F-10
C4549	F-10
C4550	F-10
C4551	F-10
C4552	E-5
C4553	E-5
C4555	D-9
C5002	B-6
C5003	C-9
C5009	C-6
C5010	C-6
C5011	B-6
C5012	B-6
C5013	B-6
C5014	B-10
C5015	B-7
C5016	B-6
C5017	B-9
C5018	B-10
C5019	B-6
C5020	B-6
C5021	B-10
C5022	B-10
C5023	B-10
C5024	A-9
C5025	A-9
C5026	B-7
C5027	A-9
C5028	B-9
C5029	A-9
C5030	A-9
C5031	C-9
C5032	A-9
C5033	A-9
C5034	A-7
C5036	A-9
C5037	A-9
C5038	B-6
C5039	C-9
C5040	B-6
C5041	B-10
C5042	B-6
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C5086	C-9
C5100	B-7
C5101	C-10
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C6002	F-13
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C6012	D-3
C6013	D-3
C6014	E-13
C6015	C-1
C6017	C-1
C6018	C-1
C6020	C-1
C6022	D-4
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C6024	E-3
C6025	E-2
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C6041	E-4
C6042	E-2
C6043	D-3
C6044	D-3
C6201	D-12
C6203	B-2
C6204	D-13
C6205	D-13
C6206	E-3
C6207	E-3
C6208	D-13
C6209	D-2
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C6211	D-2
C6213	D-1
C6214	D-13
C6221	C-13
C6230	C-2
C6231	D-12
C8002	A-2
C8003	A-1
C8006	C-3
C8012	C-10
C8015	D-4
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C8022	A-2
C8023	B-3
C8024	B-2
C8030	B-2
C8032	C-12
C8033	B-12
C8034	A-13
C8035	B-13
C8036	B-13
C8037	B-13
C8038	B-12
C8039	B-12
C8041	A-12
C8042	B-13
C8048	B-2
C8049	B-2
C8050	C-12
C8051	C-12
C8052	C-12
C8053	C-12
C8054	C-12
C8062	C-10
C8063	C-10
C8064	C-3
C8066	C-13
C8067	C-4
C8077	D-11
C8078	C-11
C8079	C-12
C8080	C-12
C8081	C-12
C8082	C-12
C8083	D-12
C8084	C-3
C8085	C-11
C8086	C-11
C8087	C-11
C8088	C-4
C8089	C-11
C8090	C-11
C8091	B-3
C8092	C-4
C8093	B-3
C8094	B-4
C8095	B-3
C8096	B-3
C8097	B-11
C8098	B-4
C8099	B-12
C8100	C-3
C8101	C-2
C8102	B-12
C8103	A-2
C8105	C-10
Resistor	
R3001	A-13
R3002	A-13
R3003	B-12
R3004	B-12
R3005	B-11
R3006	B-11
R3007	B-12
R3008	B-12
R3010	B-10
R3011	B-10
R3012	B-10
R3013	B-10
R3014	B-10
R3015	B-10
R3016	C-3
R3017	B-11
R3021	B-10
R3022	B-10
R3023	B-10
R3027	C-10
R3029	A-10
R3030	B-11
R3031	C-11
R3032	C-13
R3033	C-10
R3036	C-13
R3037	C-13
R3038	C-13
R3040	C-13
R3042	A-11
R3043	A-11
R3044	A-11
R3045	A-11
R3046	B-10
R3048	B-4
R3049	B-10
R3050	C-13
R3055	C-4
R3058	B-10
R3059	B-11
R3060	A-4
R3061	A-4
R3062	A-4
R3064	A-12
R3070	C-11
R3071	C-11
R3072	C-11
R3073	C-11
R3074	C-10
R3075	C-10
R3076	C-10
R3077	C-11
R3080	B-11
R3081	B-4
R3082	D-11
R3084	D-11
R3086	C-11
R3089	A-11
R3090	C-11
R3091	C-10
R3092	C-10
R3095	B-11
R3098	B-11
R3107	A-12
R3113	B-5
R3131	B-11
R3213	B-4
R3225	A-12
R3238	C-12
R3240	C-13
R3241	C-13
R3244	B-11
R3245	B-11
R4001	E-6
R4002	E-5
R4003	E-10
R4004	E-10
R4005	E-10
R4006	E-10
R4007	E-10
R4009	D-10
R4010	E-5
R4014	E-10
R4015	C-10
R4016	C-10
R4017	C-9
R4018	C-9
R4019	C-9
R4020	C-6
R4021	C-7
R4022	C-6
R4023	C-9
R4024	D-9
R4025	C-10
R4026	D-10
R4027	D-10
R4028	D-9
R4501	D-11
R4502	E-4
R4503	E-4
R4504	E-4
R4505	E-4
R4510	D-11
R4511	E-11
R4512	D-11
R4513	E-11
R4516	D-11
R4517	E-11
R4518	C-5
R4519	C-10
R4520	E-11
R4521	C-10
R4524	F-4
R4525	F-10
R4526	E-10
R4527	F-10
R4528	E-10
R4529	E-5
R4530	E-10
R4531	E-5
R4533	D-6
R4535	D-10
R4536	F-4
R4537	F-10
R4538	C-9
R4539	F-11
R4540	D-11
R4541	D-9
R4542	C-9
R4543	D-9
R4544	C-9
R4545	C-9
R4546	D-9
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R4557	F-10
R4558	F-10
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R4561	E-10
R4562	E-10
R4563	F-10
R4564	F-10
R4565	E-10
R4566	E-10
R4567	F-10
R4568	F-10
R4575	D-10
R4576	D-10
R4577	D-10
R4578	D-10
R4579	D-10
R4580	D-10
R5001	B-9
R5002	C-9
R5003	C-9
R5005	B-9
R5006	A-9
R5007	A-9
R5008	A-9
R5009	C-6
R5011	A-9
R5013	C-9
R5014	A-9
R5015	B-10
R5016	B-10
R5024	A-10
R5025	A-10
R5026	A-10
R5027	A-10
R5028	A-10
R5029	A-7
R5030	B-6
R5033	B-7
R5055	C-6
R5056	B-6
R5070	B-6
R5071	C-6
R5100	C-9
R6001	F-3
R6003	A-13
R6004	A-13
R6005	F-3
R6006	F-12
R6007	F-12
R6008	F-13
R6009	E-3
R6011	
R6012	
R6013	
R6014	
R6015	
R6016	
R6017	
R6018	
R6019	
R6020	
R6021	
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R6096	
R6097	
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R6099	
R6100	
R6101	
R6102	
R6103	
R6104	
R6105	
R6106	
R6107	
R6108	
R6111	
R6112	

ADDRESS INFORMATION

VTR MAIN C.B.A.

CL6023	E-4
CL6024	D-2
CL6024	D-12
CL6204	B-6
CL6206	D-3
CL6207	D-3
CL6208	D-2
CL6209	E-5
CL6211	D-2
CL6212	C-1
CL6214	C-2
CL6215	E-4
CL6301	F-4
CL6306	F-12
CL8001	B-2
CL8003	C-3
CL8004	C-2
CL8010	A-2
CL8011	B-3
CL8012	C-4
CL8014	B-3
CL8015	B-3
TL3003	C-4
TL3004	B-5
TL4001	D-6
TL4002	E-6
TL4005	C-7
TL4504	E-4
TL4507	C-5
TL4508	D-5
TL5001	A-7
TL5002	A-7
TL5003	C-6
TL5004	C-5
TL5005	A-7
TL8001	B-2
TL8002	C-5
TL8003	B-2
TL8005	C-4
TL8006	B-3
TP8001	B-7

Adjustment

VR3004	B-3
VR3005	B-3
VR3006	A-4
VR3007	C-4
VR8002	C-3

Connector

B4002	F-5
B6001	E-1
B6004	E-3
FP3003	E-2
FP4001	D-5
FP5001	A-6
FP6001	F-2
FP6002	F-3
FP6005	D-13
FP6006	F-1
FP6007	B-1
P3003	A-3
P4003	F-5
P6003	A-14

Crystal Oscillator

X6001	E-4
X6002	D-2
X8001	B-3

Filter

FL3001	C-3
FL8001	C-4

Coil

L3001	C-11
L3002	A-11
L3003	B-11
L3004	C-11
L3005	B-10
L3006	B-11
L3010	C-13
L3011	C-10
L3012	C-11
L3015	A-11
L3017	A-11
L3018	A-11
L3019	B-11
L3021	C-11
L3030	C-10
L4001	C-6
L4002	E-5
L4003	E-10
L4501	E-11
L5001	C-10
L5002	C-6
L5003	C-6
L5004	B-10
L5005	A-10
L5007	B-10
L5008	C-9
L5010	B-10
L6001	C-1
L6002	C-14
L6003	B-1
L8001	A-2
L8002	A-2
L8003	B-3
L8004	A-2
L8006	D-4
L8007	B-2
L8012	C-5
L8014	D-10
L8015	B-11
L8018	C-3

Capacitor

C3002	C-5
C3003	C-5
C3004	C-4
C3005	B-11
C3006	B-11
C3007	B-11
C3008	A-12
C3009	B-12
C3010	B-12
C3011	A-12
C3012	A-12
C3013	C-5
C3015	B-10
C3016	B-10
C3017	B-10
C3018	B-11
C3020	B-12
C3021	B-10
C3022	B-10
C3029	C-13
C3030	C-13
C3031	C-10
C3032	C-10
C3033	B-4
C3034	C-11
C3035	D-11
C3036	C-11
C3037	C-10
C3042	A-11
C3045	A-11
C3047	A-11
C3054	A-11
C3055	A-11
C3059	C-3
C3060	C-3
C3061	C-10
C3062	C-11
C3063	B-11
C3065	C-10
C3071	A-11
C3072	C-11
C3085	A-12
C3208	A-12
C3209	A-12
C3210	A-10
C3211	A-11
C3215	B-11
C4001	E-5
C4002	E-5
C4004	E-10
C4005	D-10
C4006	D-10
C4007	E-5
C4008	E-10
C4011	E-10
C4012	C-6
C4013	D-5
C4014	D-6
C4015	D-9
C4016	D-9
C4017	C-6
C4018	D-6
C4020	C-9
C4021	E-5
C4022	E-5
C4025	F-5
C4501	D-11
C4502	E-10
C4503	E-10
C4504	E-4
C4505	E-4
C4506	E-5
C4507	E-4
C4508	D-11
C4509	E-11
C4510	D-11
C4511	E-11
C4512	D-5
C4513	F-5
C4514	D-11
C4515	F-11
C4516	D-11
C4517	E-11
C4518	D-11
C4519	E-11
C4522	D-5
C4524	D-11
C4525	E-11
C4526	D-5
C4527	E-11
C4528	E-11
C4532	D-10
C4533	D-10
C4534	E-5
C4535	F-4
C4539	C-9
C4540	D-9
C4541	C-9
C4542	E-11
C4543	D-11
C4544	D-10
C4545	F-10
C4546	E-10
C4548	F-10
C4549	F-10
C4550	F-10
C4551	F-10
C4552	E-5
C4553	E-5
C4555	D-9
C5002	B-6
C5003	C-9
C5009	C-6
C5010	C-6
C5011	B-6
C5012	B-6
C5013	B-6
C5014	B-10
C5015	B-7
C5016	B-6
C5017	B-9
C5018	B-10
C5019	B-6
C5020	B-6
C5021	B-10
C5022	B-10
C5023	B-10
C5024	A-9
C5025	A-9
C5026	B-7
C5027	A-9
C5028	B-9
C5029	A-9
C5030	A-9
C5031	C-9
C5032	A-9
C5033	A-9
C5034	A-7
C5036	A-9
C5037	A-9
C5038	B-6
C5039	C-9
C5040	B-6
C5041	B-10
C5042	B-6
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C5059	A-9
C5060	A-9
C5063	B-6
C5085	B-6
C5086	C-9
C5100	B-7
C5101	C-10
C6001	F-13
C6002	F-13
C6003	F-14
C6004	F-4
C6005	E-3
C6006	F-12
C6007	E-12
C6008	F-14
C6011	D-2
C6012	D-3
C6013	D-3
C6014	E-13
C6015	C-1
C6017	C-1
C6018	C-1
C6020	C-1
C6022	D-4
C6023	E-4
C6024	E-3
C6025	E-2
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C6037	F-12
C6038	F-12
C6039	F-4
C6040	C-1
C6041	E-4
C6042	E-2
C6043	D-3
C6044	D-3
C6201	D-12
C6203	B-2
C6204	D-13
C6205	D-13
C6206	E-3
C6207	E-3
C6208	D-13
C6209	D-2
C6210	E-2
C6211	D-2
C6213	D-1
C6214	D-13
C6221	C-13
C6230	C-2
C6231	D-12
C8002	A-2
C8003	A-1
C8006	C-3
C8012	C-10
C8015	D-4
C8019	B-12
C8022	A-2
C8023	B-3
C8024	B-2
C8030	B-2
C8032	C-12
C8033	B-12
C8034	A-13
C8035	B-13
C8036	B-13
C8037	B-13
C8038	B-12
C8039	B-12
C8041	A-12
C8042	B-13
C8048	B-2
C8049	B-2
C8050	C-12
C8051	C-12
C8052	C-12
C8053	C-12
C8054	C-12
C8062	C-10
C8063	C-10
C8064	C-3
C8066	C-13
C8067	C-4
C8077	D-11
C8078	C-11
C8079	C-12
C8080	C-12
C8081	C-12
C8082	C-12
C8083	D-12
C8084	C-3
C8085	C-11
C8086	C-11
C8087	C-11
C8088	C-4
C8089	C-11
C8090	C-11
C8091	B-3
C8092	C-4
C8093	B-3
C8094	B-4
C8095	B-3
C8096	B-3
C8097	B-11
C8098	B-4
C8099	B-12
C8100	C-3
C8101	C-2
C8102	B-12
C8103	A-2
C8105	C-10

Resistor

R3001	A-13
R3002	A-13
R3003	B-12
R3004	B-12
R3005	B-11
R3006	B-11
R3007	B-12
R3008	B-12
R3010	B-10
R3011	B-10
R3012	B-10
R3013	B-10
R3014	B-10
R3015	B-10
R3016	C-3
R3017	B-11
R3021	B-10
R3022	B-10
R3023	B-10
R3027	C-10
R3029	A-10
R3030	B-11
R3031	C-11
R3032	C-13
R3033	C-10
R3036	C-13
R3037	C-13
R3038	C-13
R3040	C-13
R3042	A-11
R3043	A-11
R3044	A-11
R3045	A-11
R3046	B-10
R3048	B-4
R3049	B-10
R3050	C-13
R3055	C-4
R3058	B-10
R3059	B-11
R3060	A-4
R3061	A-4
R3062	A-4
R3064	A-12
R3070	C-11
R3071	C-11
R3072	C-11
R3073	C-11
R3074	C-10
R3075	C-10
R3076	C-10
R3077	C-11
R3080	B-11
R3081	B-4
R3082	D-11
R3084	D-11
R3086	C-11
R3089	A-11
R3090	C-11
R3091	C-10
R3092	C-10
R3095	B-11
R3098	B-11
R3107	A-12
R3113	B-5
R3131	B-11
R3213	B-4
R3225	A-12
R3238	C-12
R3240	C-13
R3241	C-13
R3244	B-11
R3245	B-11
R4001	E-6
R4002	E-5
R4003	E-10
R4004	E-10
R4005	E-10
R4006	E-10
R4007	E-10
R4009	D-10
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R4014	E-10
R4015	C-10
R4016	C-10
R4017	C-9
R4018	C-9
R4019	C-9
R4020	C-6
R4021	C-7
R4022	C-6
R4023	C-9
R4024	D-9
R4025	C-10
R4026	D-10
R4027	D-10
R4028	D-9
R4501	D-11
R4502	E-4
R4503	E-4
R4504	E-4
R4505	E-4
R4510	D-11
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R4512	D-11
R4513	E-11
R4516	D-11
R4517	E-11
R4518	C-5
R4519	C-10
R4520	E-11
R4521	C-10
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R4533	D-6
R4535	D-10
R4536	F-4
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R4538	C-9
R4539	F-11
R4540	D-11
R4541	D-9
R4542	C-9
R4543	D-9
R4544	C-9
R4545	C-9
R4546	D-9
R4555	F-10
R4556	F-10
R4557	F-10
R4558	F-10
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R4567	F-10
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R4575	D-10
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R4579	D-10
R4580	D-10
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R5002	C-9
R5003	C-9
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R5033	B-7
R5055	C-6
R5056	B-6
R5070	B-6
R5071	C-6
R5100	C-9
R6001	F-3
R6003	A-13
R6004	A-13
R6005	F-3
R6006	F-12
R6007	F-12
R6008	F-13
R6009	E-3
R6011	F-12
R6012	F-12
R6013	F-4
R6014	E-4
R6015	F-4
R6016	F-4
R6017	D-13
R6018	F-4
R6019	F-4
R6020	F-4
R6021	F-13
R6022	F-13
R6024	E-3
R6025	E-2
R6026	E-3
R6027	A-14
R6028	A-13
R6029	C-1
R6030	E-11
R6031	C-1
R6032	C-2
R6033	C-2
R6034	E-11
R6035	E-12
R6038	E-3
R6039	F-14
R6040	D-2
R6041	D-2
R6042	E-13
R6043	E-2
R6044	E-2
R6045	E-2
R6048	D-12
R6049	D-12
R6050	D-2
R6051	D-2
R6052	D-2
R6053	D-12
R6054	D-12
R6055	D-4
R6056	D-2
R6058	D-12
R6060	E-1
R6061	D-12
R6062	E-3
R6063	E-3
R6066	F-13
R6070	E-11
R6071	D-4
R6072	F-12
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R6074	F-11
R6075	F-12
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R6077	F-12
R6080	B-14
R6081	B-14
R6082	B-14
R6083	B-14
R6084	B-13
R6085	C-14
R6090	B-2
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R6092	B-2
R6093	B-1
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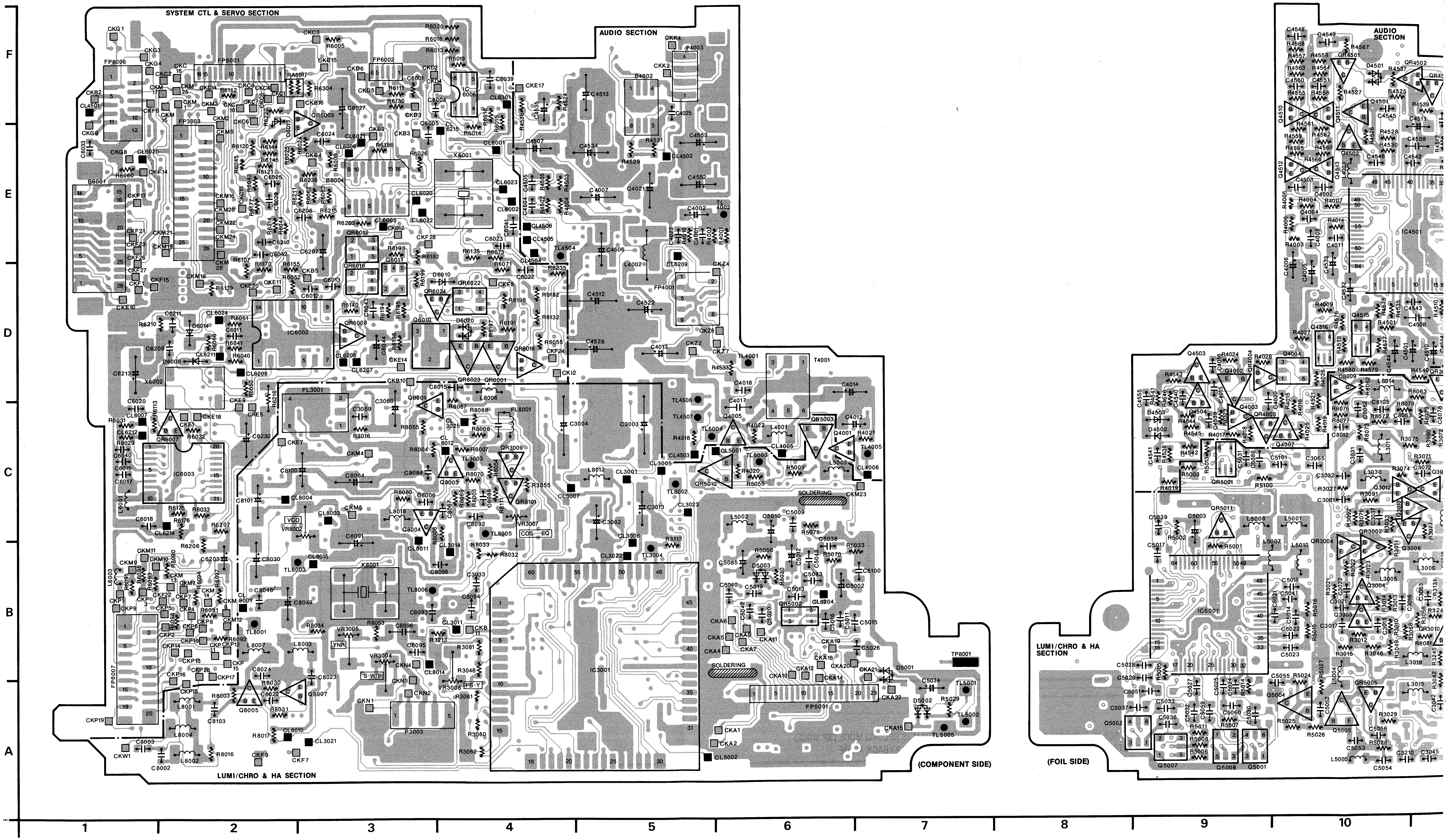
R6101	A-14
R6102	B-14
R6103	B-14
R6104	B-14
R6105	B-14
R6106	B-14
R6107	D-2
R6108	B-13
R6111	F-3
R6112	F-2
R6113	C-1
R6120	E-2
R6121	E-2
R6130	F-3
R6131	D-14
R6132	D-4
R6134	D-12
R6135	E-4
R6138	F-12
R6139	D-2
R6140	D-3
R6141	C-14
R6144	E-2
R6145	E-2
R6150	E-11
R6151	F-14
R6152	F-13
R6153	F-13
R6154	E-14
R6155	D-2
R6168	C-14
R6170	D-2
R6173	F-12
R6174	F-12
R6175	C-2
R6176	C-2
R6177	E-2
R6180	D-11
R6181	D-11
R6182	D-4
R6183	E-11
R6184	D-12
R6186	E-3
R6187	E-12
R6191	D-4
R6192	E-3
R6193	E-3
R6194	D-3
R6195	D-3
R6196	D-3
R6197	D-4
R6198	D-4
R6199	D-3
R6203	E-3
R6205	D-13
R6206	B-2
R6207	C-2
R6208	D-13
R6209	D-13
R6210	D-2
R6211	E-3
R6212	D-13
R6213	D-13
R6214	E-2
R6215	E-3
R6216	D-2
R6220	F-2
R6231	E-14
R6232	D-13
R6233	E-11
R6234	E-11
R6235	D-4
R6303	E-13
R6304	F-3
R8003	A-2
R8004	C-3
R8005	C-4
R8006	C-4
R8007	C-4
R8008	C-4
R8016	A-2
R8017	A-2
R8018	D-12
R8019	C-13
R8030	A-2
R8031	A-2
R8032	B-4
R8033	B-4
R8034	B-3
R8035	B-12
R8036	B-12
R8040	B-12
R8041	B-12
R8046	A-13
R8047	A-13
R8048	A-13
R8049	A-13
R8050	A-13
R8051	A-12
R8052	B-11
R8053	B-3
R8054	C-4
R8055	C-3
R8056	A-13
R8057	C-13
R8058	C-13
R8062	D-10
R8063	D-11
R8067	D-4
R8068	C-4
R8069	C-4
R8070	C-4
R8071	C-13
R8072	C-10
R8073	C-10
R8076	C-10
R8078	C-10
R8079	C-11
R8080	C-3
R8081	B-11
R8111	C-4
R8116	B-12

Resistor Array

RA6001	E-13
RA6004	E-13
RA6006	E-14
RA6008	B-13
RA6010	B-13
RA6012	B-13
RA6013	B-14
RA6014	F-13
RA6016	B-14
RA6017	F-2

3-23. VTR MAIN [SYSTEM CONTROL & SERVO, AUDIO, LUMINANCE/CHROMINANCE & HEAD AMP Section] C.B.A. (VEP03B15A)


SYSTEM CTL & SERVO SECTION
AUDIO SECTION
LUMI/CHRO & HA SECTION
(COMPONENT SIDE)
(FOIL SIDE)
AUDIO SECTION
LUMI/CHRO & HA SECTION
SOLDERING
VCO
COS EQ
YNR
S-W/P
PB-Y
TP8001
IC3001
IC6002
IC6003
IC5001
IC4501
X6001
X8001
FP6001
FP3003
FP4001
FP5001
FP6007
P3003
P4003
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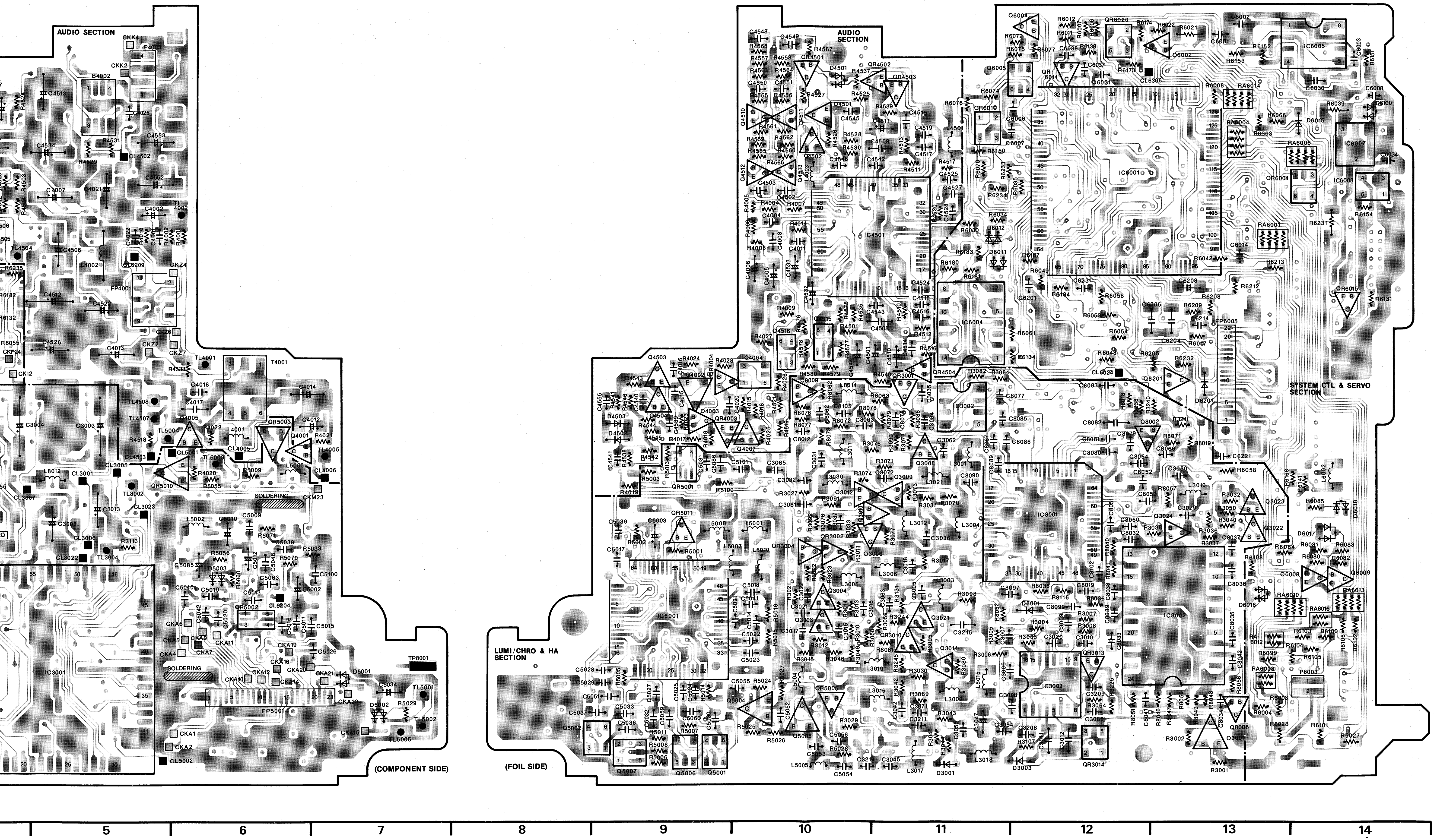
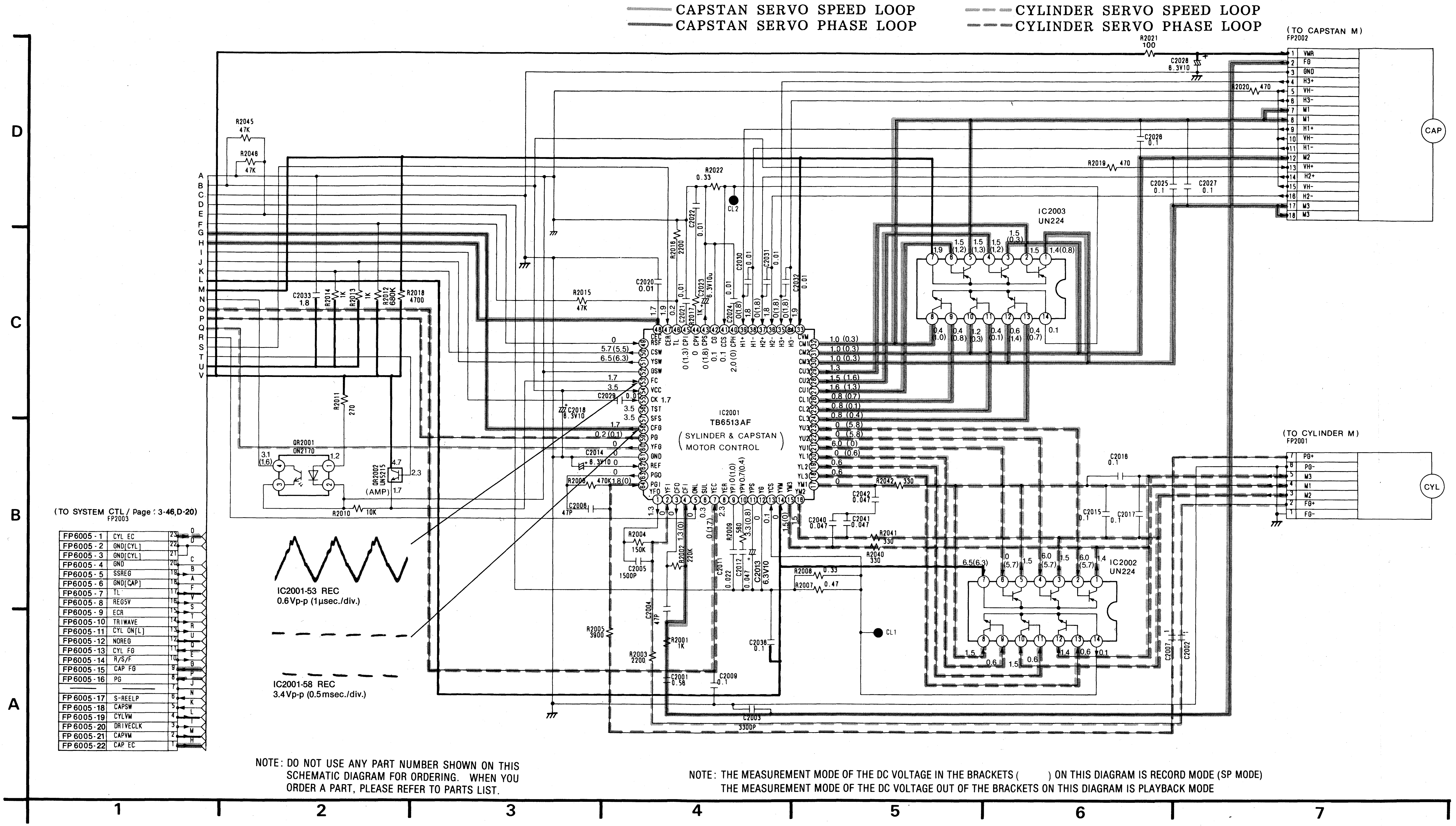
9
10


AUDIO SECTION
SOLDERING
SOLDERING
(COMPONENT SIDE)
LUMI/CHRO & HA SECTION
(FOIL SIDE)
AUDIO SECTION
SYSTEM CTL & SERVO SECTION
IC3001
IC5001
IC4501
IC6001
IC6004
IC3002
IC8001
IC8002
IC3003
IC6005
IC6007
IC6008
FP5001
FP4001
FP6005
T4001
TP8001
5
6
7
8
9
10
11
12
13
14

Next Page:
DRIVE Section

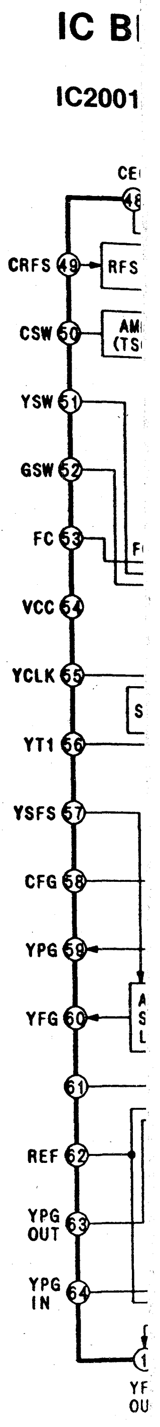
3-24. DRIVE SCHEMATIC DIAGRAM

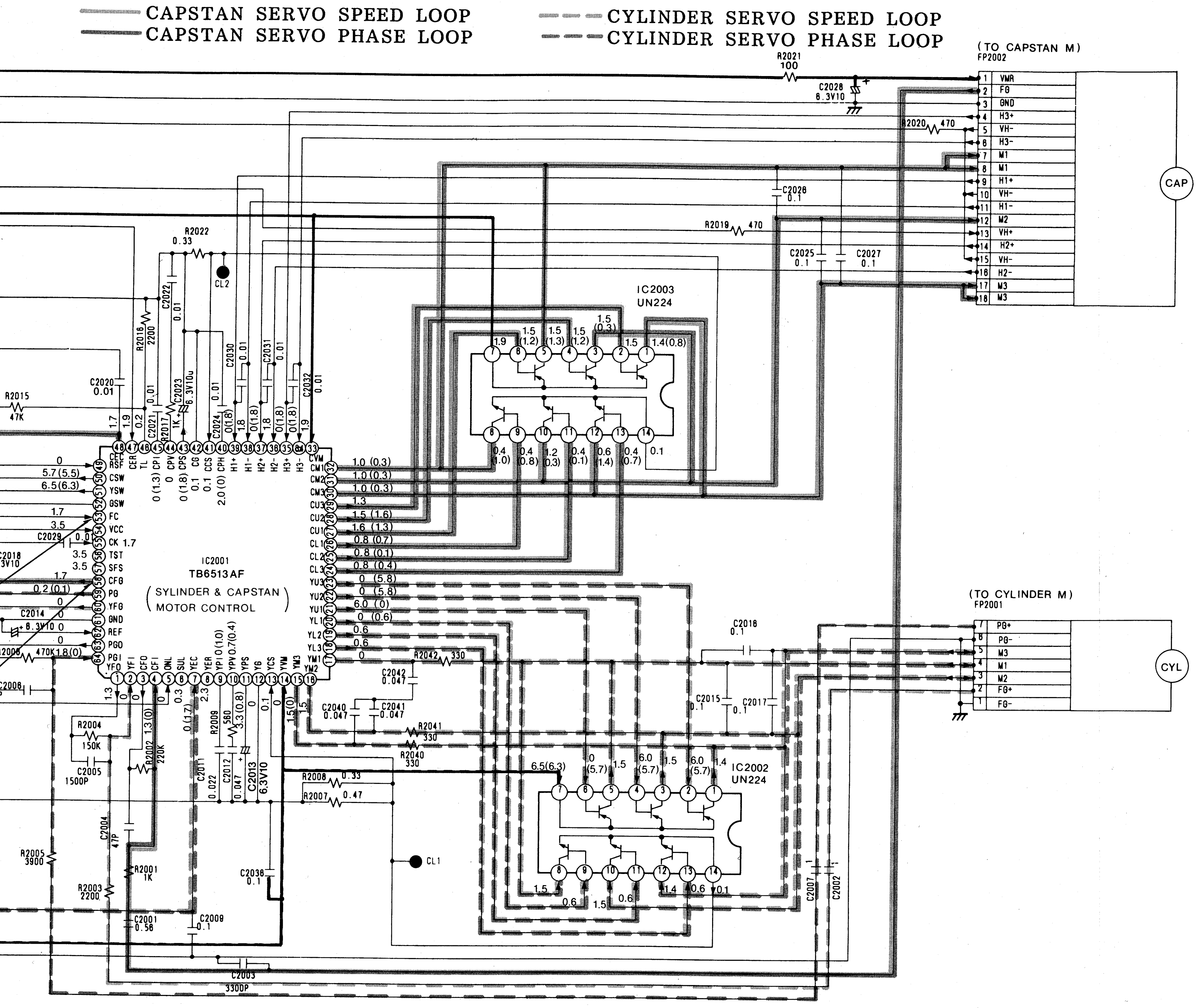

CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
(TO CAPSTAN M)
FP2002
VMR
FG
GND
H3+
VH-
H3-
M1
M1
H1+
VH-
H1-
M2
VH+
H2+
VH-
H2-
M3
M3
CAP
(TO CYLINDER M)
FP2001
PG+
PG-
M3
M1
M2
FG+
FG-
CYL
IC2001
TB6513AF
(SYLINDER & CAPSTAN MOTOR CONTROL)
IC2003
UN224
IC2002
UN224
QR2001
UN2170
QR2002
UN5215
(AMP)
CL1
CL2
R2021
100
C2028
6.3V10
R2020 470
C2026
0.1
R2019 470
C2025 0.1
C2027 0.1
R2022
0.33
R2045
47K
R2046
47K
R2015
47K
C2033 1.8
R2014 1K
R2013 1K
R2012 680K
R2018 4700
R2011
270
R2010 10K
C2018
6.3V10
C2029
C2014
6.3V10
R2006 470K
C2008
47P
R2004
150K
C2005
1500P
R2002
220K
C2004
47P
R2005
3900
R2001
1K
R2003
2200
C2001
0.56
C2009
0.1
C2003
3300P
C2038
0.1
C2011
0.022
R2009
560
C2012
0.047
C2013
6.3V10
C2040
0.047
C2041
0.047
C2042
0.047
R2042 330
R2041
330
R2040
330
R2008 0.33
R2007 0.47
C2016
0.1
C2015
0.1
C2017
0.1
C2007
C2002
C2020
0.01
C2022
0.01
C2021
0.01
R2016
2200
R2017
1K
C2023
6.3V10u
C2024
0.01
C2030
0.01
C2031
0.01
C2032
0.01
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
IC2001-53 REC
0.6Vp-p (1μsec./div.)
IC2001-58 REC
3.4Vp-p (0.5msec./div.)
(TO SYSTEM CTL / Page : 3-46,D-20)
FP2003
D
C
B
A
1
2
3
4
5
6
7

FP6005 - 1	CYL EC	23
FP6005 - 2	GND[CYL]	22
FP6005 - 3	GND[CYL]	21
FP6005 - 4	GND	20
FP6005 - 5	SSREG	19
FP6005 - 6	GND[CAP]	18
FP6005 - 7	TL	17
FP6005 - 8	REG5V	16
FP6005 - 9	ECR	15
FP6005 - 10	TRIWAVE	14
FP6005 - 11	CYL ON[L]	13
FP6005 - 12	NOREG	12
FP6005 - 13	CYL FG	11
FP6005 - 14	R/S/F	10
FP6005 - 15	CAP FG	9
FP6005 - 16	PG	8
——	——	7
FP 6005 - 17	S-REELP	6
FP 6005 - 18	CAPSW	5
FP 6005 - 19	CYLVM	4
FP 6005 - 20	DRIVECLK	3
FP 6005 - 21	CAPVM	2
FP 6005 - 22	CAP EC	1

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (　　) ON THIS DIAGRAM IS RECORD MODE (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE


IC B
IC2001
CRFS
CSW
YSW
GSW
FC
VCC
YCLK
YT1
YSFS
CFG
YPG
YFG
REF
YPG OUT
YPG IN
RFS

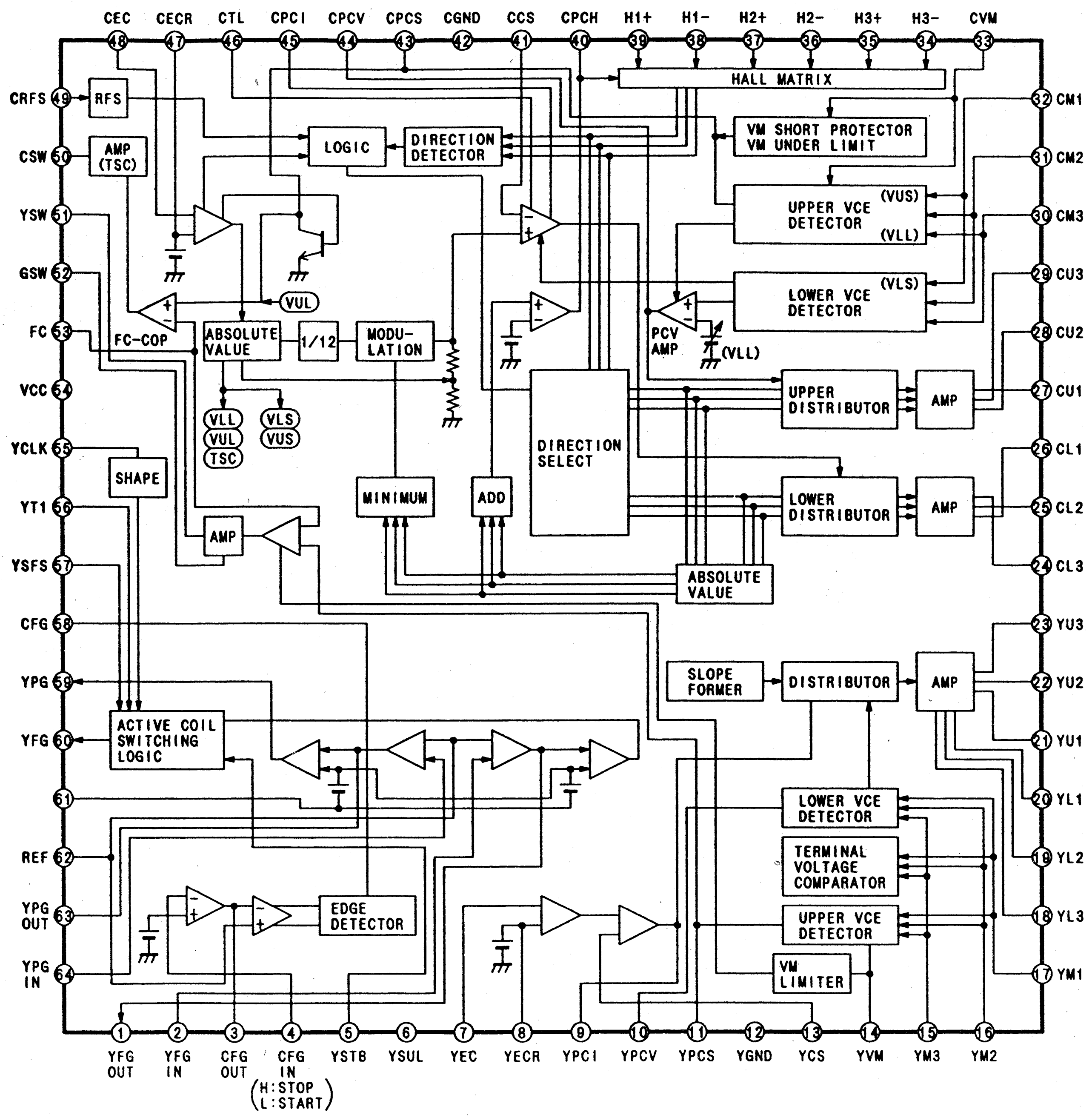

CAPSTAN SERVO SPEED LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CYLINDER SERVO PHASE LOOP
(TO CAPSTAN M)
FP2002
CAP
VMR
FG
GND
H3+
VH-
H3-
M1
H1+
H1-
M2
VH+
H2+
H2-
M3
R2021
100
C2028
6.3V10
R2020 470
C2026
0.1
R2019 470
C2025
0.1
C2027
0.1
R2022
0.33
CL2
IC2003
UN224
R2015
47K
C2020
0.01
IC2001
TB6513AF
(SYLINDER & CAPSTAN MOTOR CONTROL)
(TO CYLINDER M)
FP2001
CYL
PG+
PG-
FG+
FG-
C2018
0.1
R2042 330
C2042
0.047
C2040
0.047
C2041
0.047
R2041
330
R2040
330
C2015
0.1
C2017
0.1
IC2002
UN224
R2008 0.33
R2007 0.47
CL1
R2004
150K
C2005
1500P
R2002
220K
C2004
47P
R2005
3900
R2001
1K
R2003
2200
C2001
0.56
C2008
0.1
C2038
0.1
C2003
330P
C2007
C2002
C2013
6.3V10
R2009
560

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (   ) ON THIS DIAGRAM IS RECORD MODE (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE

4 5 6 7

IC BLOCK

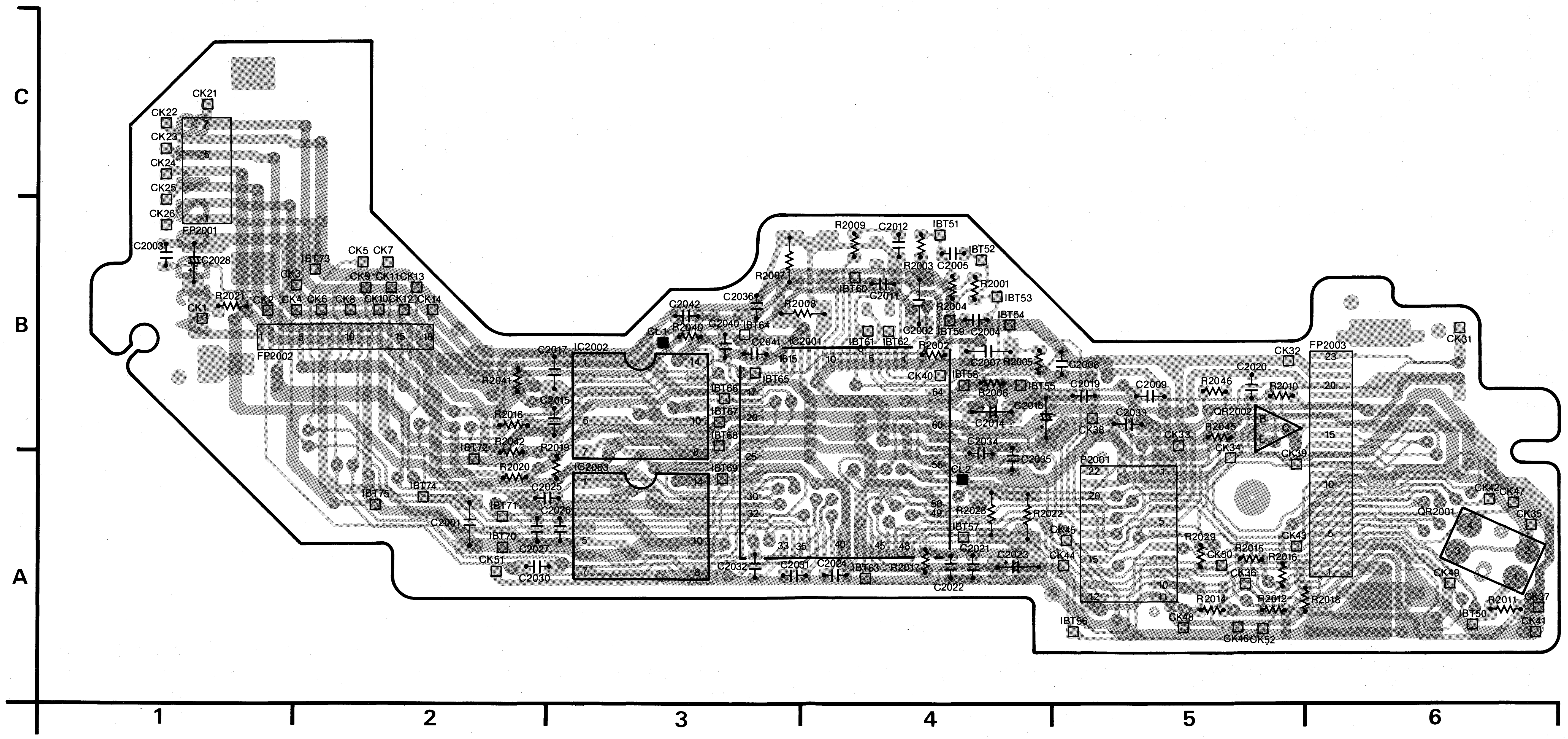
IC2001 (TB6513AF)


CEC
CECR
CTL
CPCI
CPCV
CPCS
CGND
CCS
CPCH
H1+
H1-
H2+
H2-
H3+
H3-
CVM
HALL MATRIX
CRFS
RFS
CSW
AMP (TSC)
LOGIC
DIRECTION DETECTOR
VM SHORT PROTECTOR
VM UNDER LIMIT
CM1
CM2
YSW
UPPER VCE DETECTOR
(VUS)
(VLL)
CM3
GSW
(VUL)
LOWER VCE DETECTOR
(VLS)
CU3
FC
FC-COP
ABSOLUTE VALUE
1/12
MODU-LATION
PCV AMP
CU2
VCC
(VLL)
(VUL)
(TSC)
(VLS)
(VUS)
DIRECTION SELECT
UPPER DISTRIBUTOR
AMP
CU1
YCLK
SHAPE
CL1
YT1
MINIMUM
ADD
LOWER DISTRIBUTOR
CL2
YSFS
AMP
ABSOLUTE VALUE
CL3
CFG
YU3
YPG
SLOPE FORMER
DISTRIBUTOR
YU2
YFG
ACTIVE COIL SWITCHING LOGIC
YU1
LOWER VCE DETECTOR
YL1
REF
TERMINAL VOLTAGE COMPARATOR
YL2
YPG OUT
EDGE DETECTOR
UPPER VCE DETECTOR
YL3
YPG IN
VM LIMITER
YM1
YFG OUT
YFG IN
CFG OUT
CFG IN
(H:STOP L:START)
YSTB
YSUL
YEC
YECR
YPCI
YPCV
YPCS
YGND
YCS
YVM
YM3
YM2

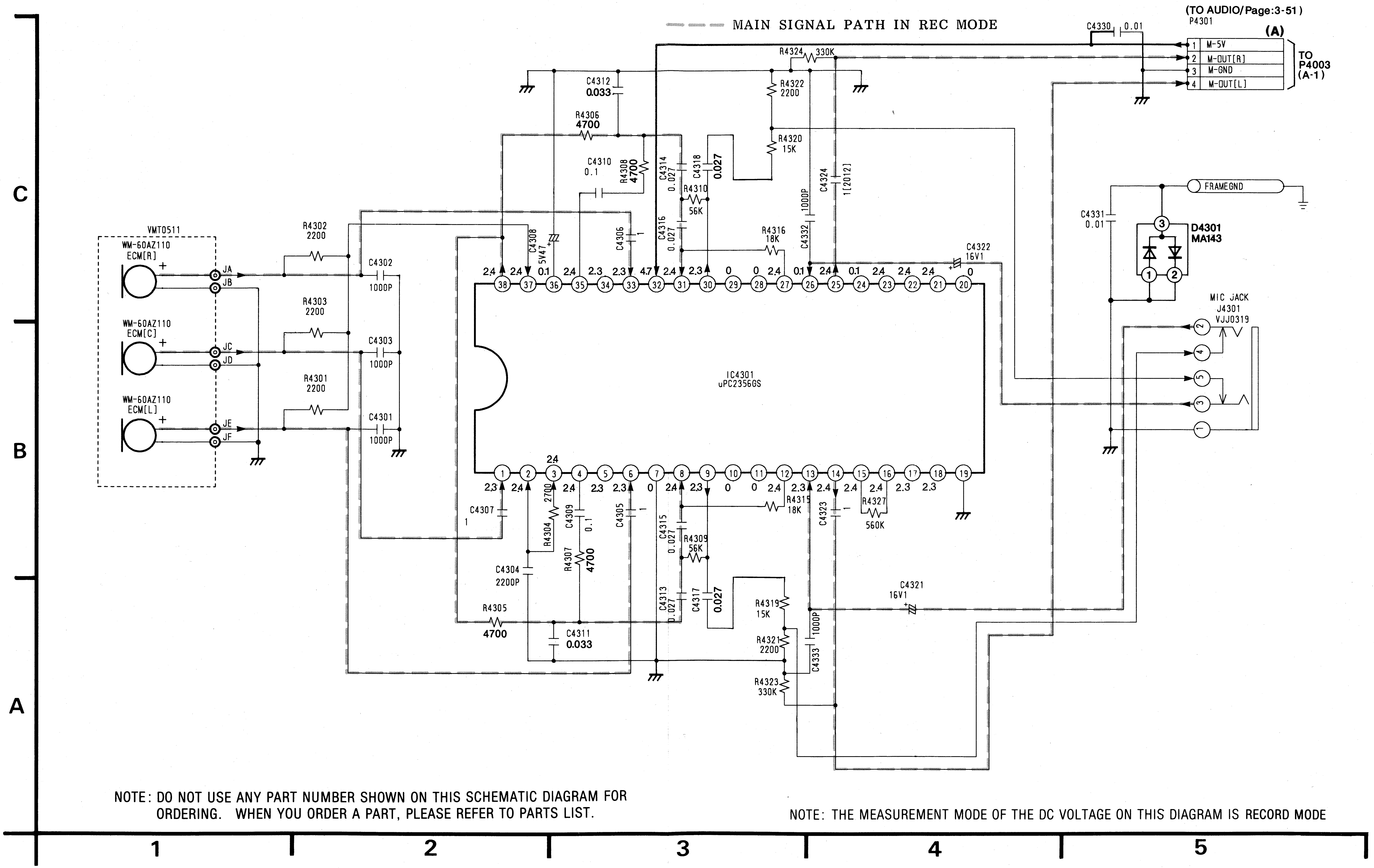
3-25. DRIVE C.B.A. (VEP02418A)

DRIVE C.B.A.	
Transistor & Resistor	
QR2001	A-6
QR2002	B-5
Integrated Circuit	
IC2001	B-4
IC2002	B-3
IC2003	A-3
Connector	
FP2001	B-1
FP2002	B-1
FP2003	B-6
P2001	A-5

ADDRESS INFORMATION


C
B
A
1
2
3
4
5
6
CK21
CK22
CK23
CK24
CK25
CK26
FP2001
C2003
C2028
IBT73
CK5
CK7
CK3
CK9
CK11
CK13
R2021
CK1
CK2
CK4
CK6
CK8
CK10
CK12
CK14
FP2002
C2017
IC2002
R2041
R2016
C2015
R2042
IBT72
R2019
R2020
IBT75
IBT74
C2025
IC2003
IBT71
C2026
C2001
IBT70
C2027
CK51
C2030
C2042
R2040
CL1
C2036
C2040
IBT64
C2041
IC2001
R2007
R2008
IBT66
IBT67
IBT68
IBT69
IBT65
C2032
C2031
C2024
IBT63
R2009
C2012
IBT51
R2003
C2005
IBT52
IBT60
C2011
R2001
IBT53
R2004
C2002
IBT59
C2004
IBT54
IBT61
IBT62
R2002
C2007
R2005
C2006
CK40
IBT58
R2006
IBT55
C2014
C2018
C2034
C2035
CL2
R2023
R2022
IBT57
C2021
R2017
C2022
C2023
CK45
CK44
C2019
C2009
C2033
CK38
CK33
R2046
C2020
R2010
QR2002
R2045
CK34
CK32
FP2003
CK39
CK31
P2001
R2029
CK50
R2015
R2016
CK43
CK36
R2014
R2012
R2018
CK48
CK46
CK52
IBT56
CK42
CK47
QR2001
CK35
CK49
R2011
CK37
IBT50
CK41

3-26. MIC SCHEMATIC DIAGRAM

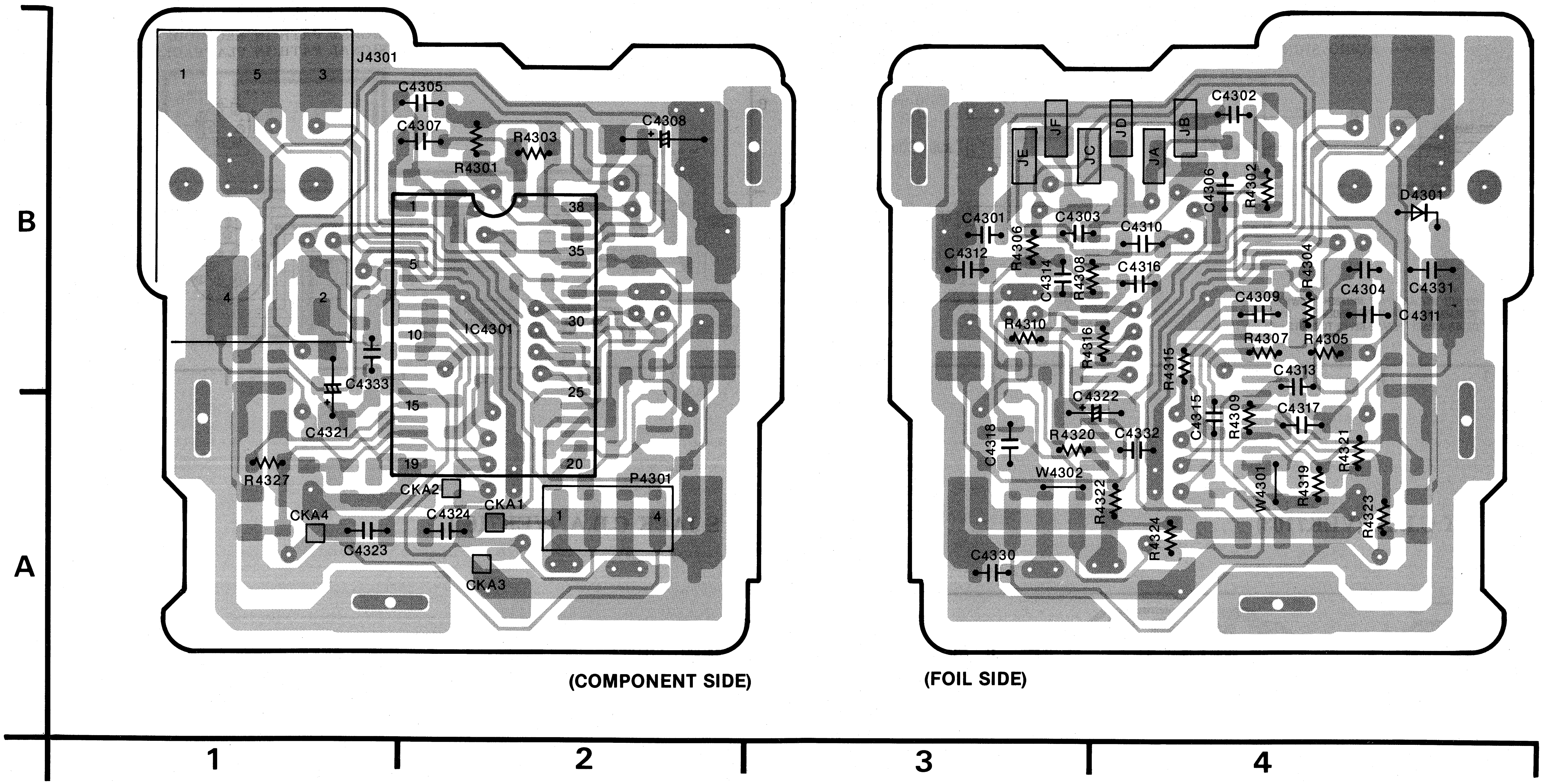

MAIN SIGNAL PATH IN REC MODE
(TO AUDIO/Page:3-51)
P4301
(A)
1 M-5V
2 M-OUT[R]
3 M-GND
4 M-OUT[L]
TO P4003 (A-1)
C4330 0.01
R4324 330K
R4322 2200
R4320 15K
C4312 0.033
R4306 4700
C4310 0.1
R4308 4700
C4314 0.027
C4318 0.027
R4310 56K
C4316 0.027
R4316 18K
C4332 1000P
C4324 1[2012]
C4322 16V1
C4308 5V47
C4306 1
VMT0511
WM-60AZ110 ECM[R]
WM-60AZ110 ECM[C]
WM-60AZ110 ECM[L]
JA
JB
JC
JD
JE
JF
R4302 2200
R4303 2200
R4301 2200
C4302 1000P
C4303 1000P
C4301 1000P
IC4301
uPC2356GS
2.4 2.4 0.1 2.4 2.3 2.3 4.7 2.4 2.3 0 0 2.4 0.1 2.4 0.1 2.4 2.4 2.4 0
24
2.3 2.4 2.4 2.3 2.3 0 2.4 2.3 0 0 2.4 2.3 2.4 2.4 2.4 2.3 2.3
C4307 1
R4304 2700
C4309 0.1
C4305 1
C4315 0.027
R4309 56K
R4315 18K
C4323 1
R4327 560K
C4304 2200P
R4307 4700
R4305 4700
C4311 0.033
C4313 0.027
C4317 0.027
R4319 15K
R4321 2200
C4333 1000P
R4323 330K
C4321 16V1
C4331 0.01
FRAMEGND
D4301
MA143
MIC JACK
J4301
VJJ0319
C
B
A
1
2
3
4
5

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS RECORD MODE

Back Page:
DRIVE Section

3-27. MIC C.B.A. (VEK7148)

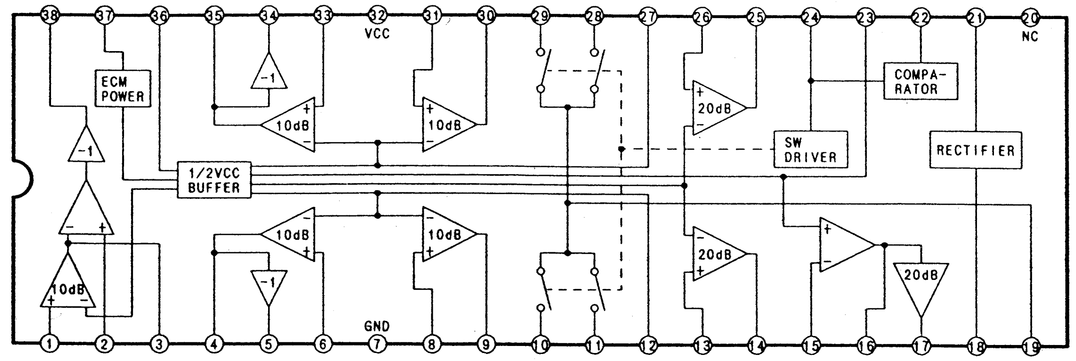

B
A
1
2
3
4
J4301
1
5
3
4
2
C4305
C4307
R4301
R4303
C4308
IC4301
1
5
10
15
19
38
35
30
25
20
C4333
C4321
R4327
CKA2
CKA1
CKA3
CKA4
C4323
C4324
P4301
1
4
C4302
JE
JF
JC
JD
JA
JB
C4306
R4302
D4301
C4301
C4303
C4310
C4312
R4306
C4314
R4308
C4316
R4304
C4304
C4331
C4311
C4309
R4310
R4316
R4307
R4305
R4315
C4313
C4322
C4315
R4309
C4317
C4318
R4320
C4332
R4321
W4302
W4301
R4319
R4322
R4323
R4324
C4330

(COMPONENT SIDE)

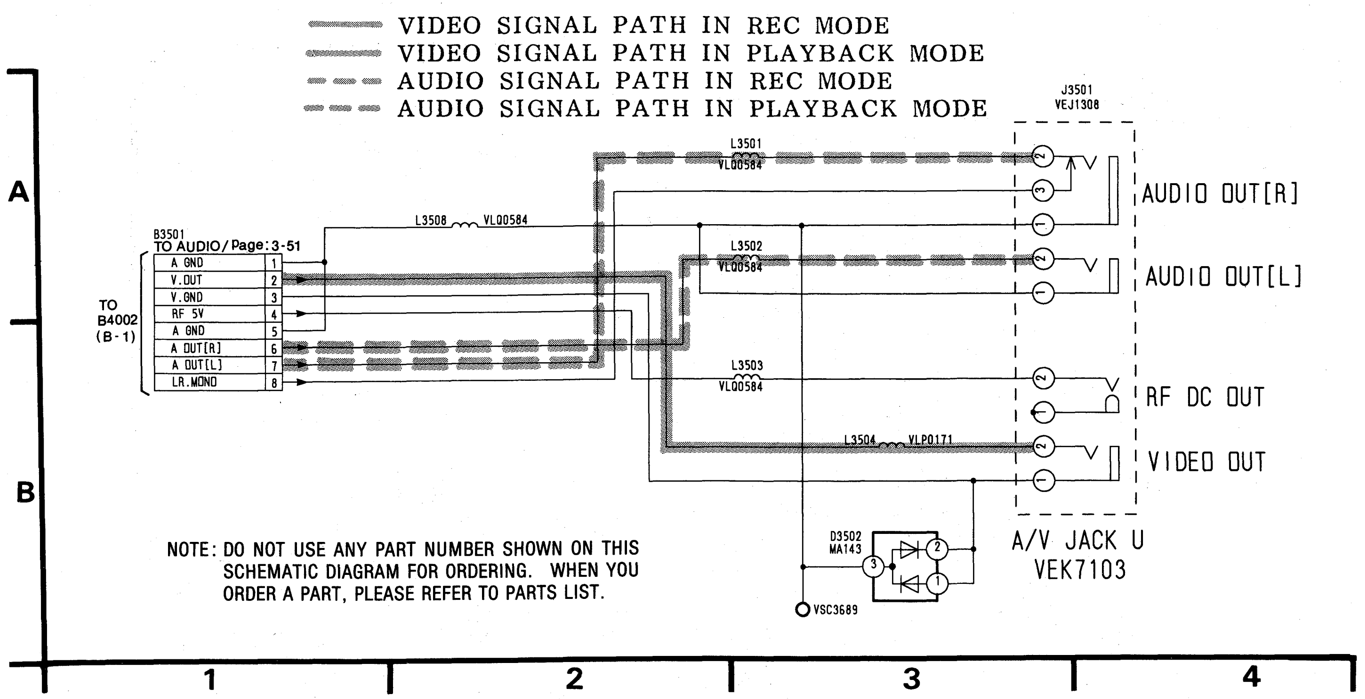
(FOIL SIDE)

IC BLOCK

IC4301 (µPC2356GS)

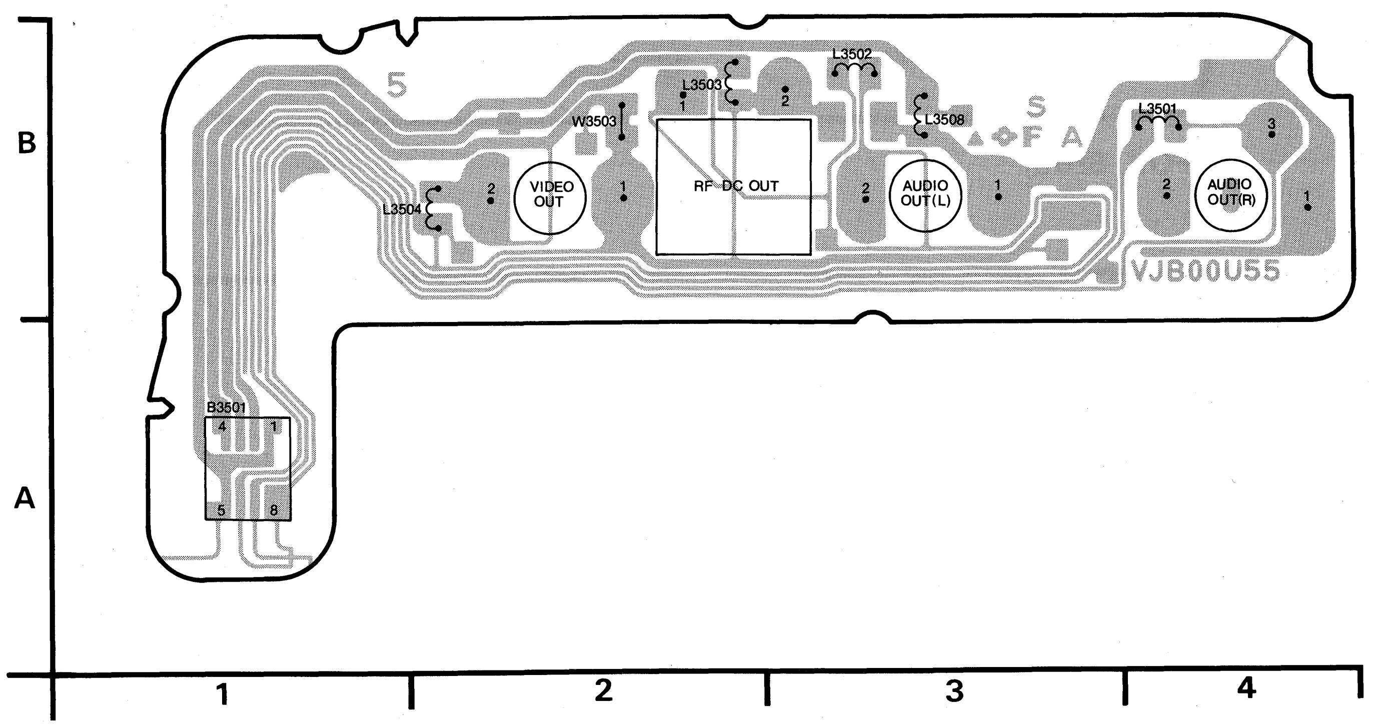

38
37
36
35
34
33
32
31
30
29
28
27
26
25
24
23
22
21
20
VCC
NC
ECM POWER
-1
10dB
10dB
20dB
COMPA-RATOR
SW DRIVER
RECTIFIER
1/2VCC BUFFER
-1
10dB
10dB
10dB
-1
20dB
20dB
GND
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19

3-28. AV JACK SCHEMATIC DIAGRAM

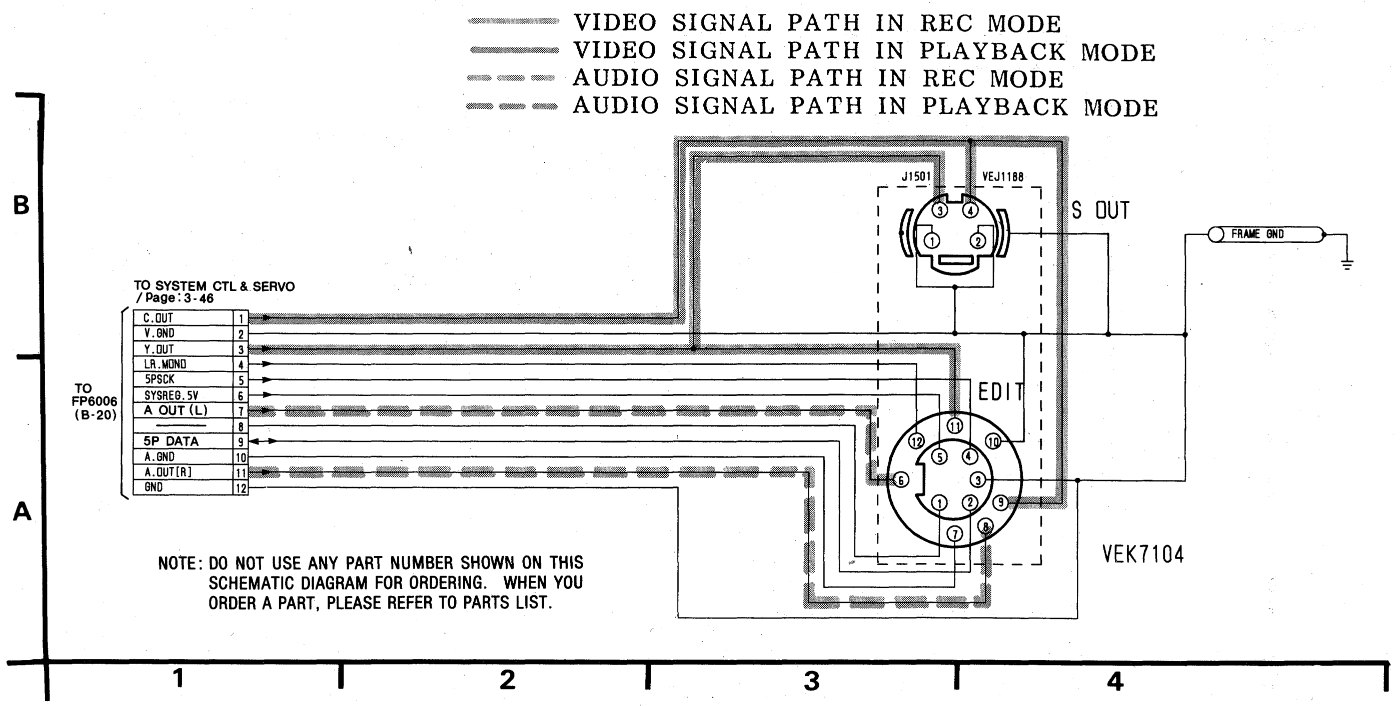

VIDEO SIGNAL PATH IN REC MODE
VIDEO SIGNAL PATH IN PLAYBACK MODE
AUDIO SIGNAL PATH IN REC MODE
AUDIO SIGNAL PATH IN PLAYBACK MODE
J3501
VEJ1308
L3501
VLQ0584
L3508
VLQ0584
B3501
TO AUDIO/Page:3-51
A GND
V.OUT
V.GND
RF 5V
A GND
A OUT[R]
A OUT[L]
LR.MONO
TO
B4002
(B-1)
L3502
VLQ0584
L3503
VLQ0584
L3504
VLP0171
AUDIO OUT[R]
AUDIO OUT[L]
RF DC OUT
VIDEO OUT
D3502
MA143
VSC3689
A/V JACK U
VEK7103
A
B
1
2
3
4

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-29. AV JACK C.B.A. (VEK7103)

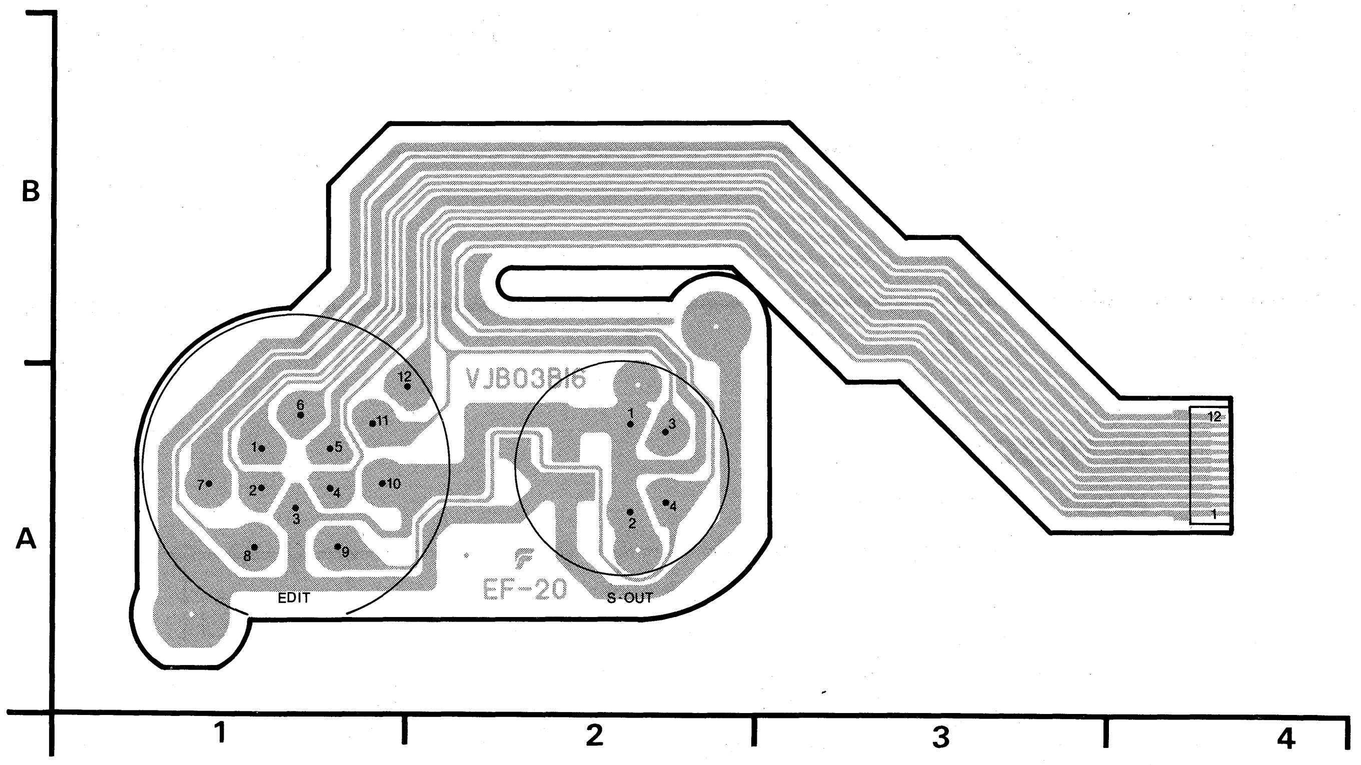

5
L3503
L3502
W3503
L3508
L3501
S
F A
VIDEO OUT
RF DC OUT
AUDIO OUT(L)
AUDIO OUT(R)
L3504
VJB00U55
B3501
4
1
5
8
B
A
1
2
3
4

3-30. S-JACK SCHEMATIC DIAGRAM


VIDEO SIGNAL PATH IN REC MODE
VIDEO SIGNAL PATH IN PLAYBACK MODE
AUDIO SIGNAL PATH IN REC MODE
AUDIO SIGNAL PATH IN PLAYBACK MODE
J1501
VEJ1188
S OUT
FRAME GND
TO SYSTEM CTL & SERVO
/ Page: 3-46
C.OUT
V.GND
Y.OUT
LR.MONO
5PSCK
SYSREG.5V
A OUT (L)
5P DATA
A.GND
A.OUT[R]
GND
TO
FP6006
(B-20)
EDIT
VEK7104
B
A
1
2
3
4

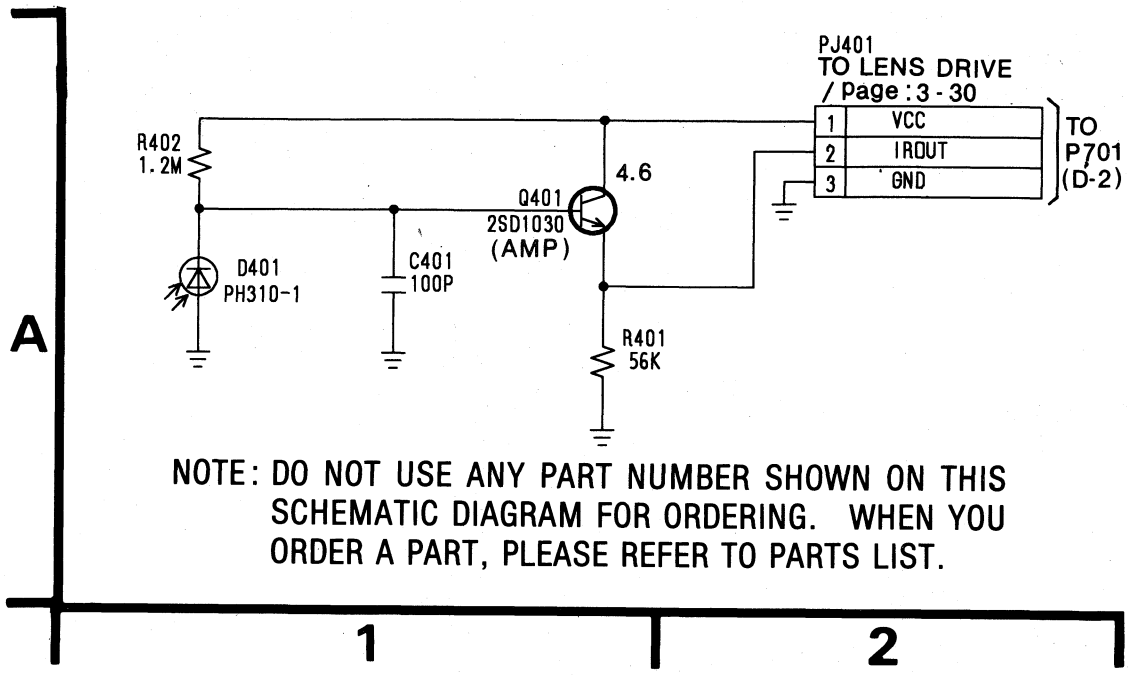
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-31. S-JACK C.B.A. (VEK7104)


VJB03B16
EF-20
EDIT
S-OUT
12
1
B
A
1
2
3
4

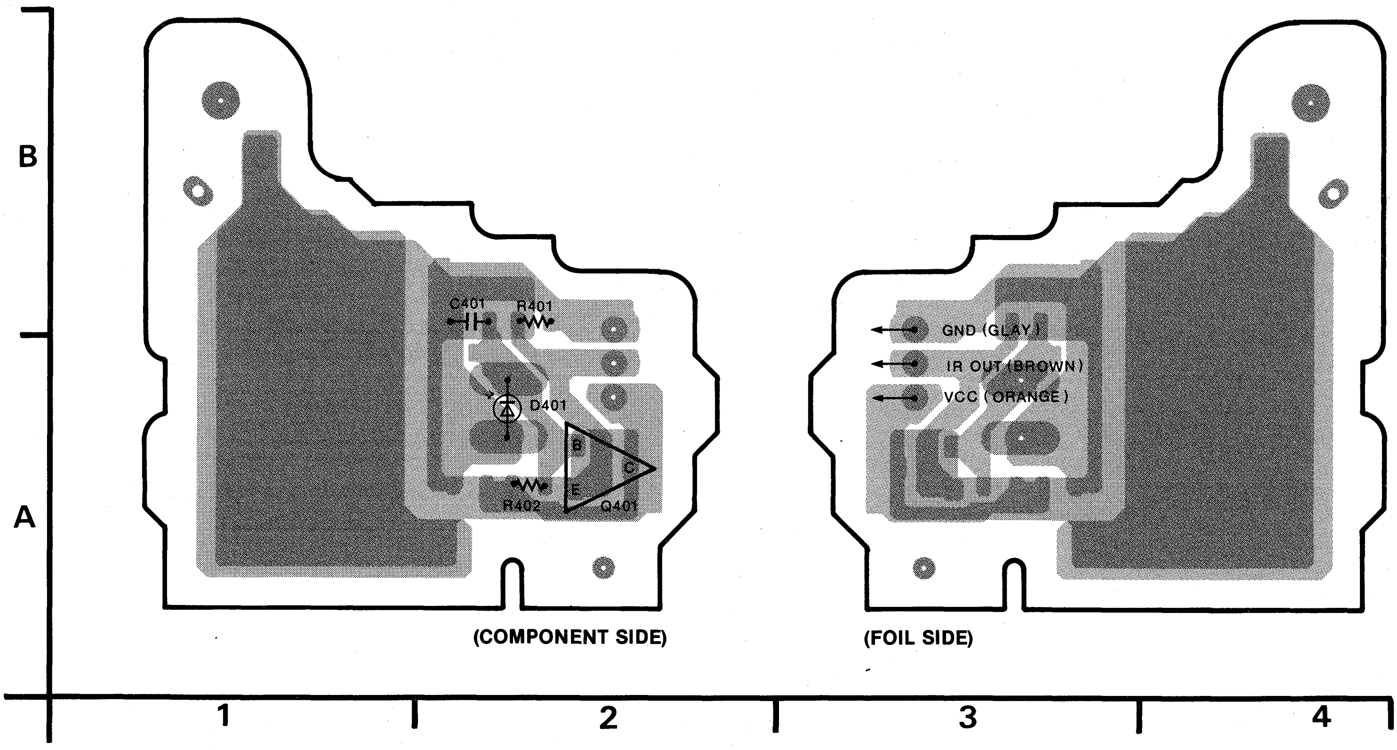
Back Page:
MIC Section

3-32. IR SENSOR SCHEMATIC DIAGRAM


PJ401
TO LENS DRIVE
/ Page : 3 - 30
1 VCC
2 IROUT
3 GND
TO P701 (D-2)
R402 1.2M
4.6
Q401 2SD1030 (AMP)
D401 PH310-1
C401 100P
R401 56K
A
1
2

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

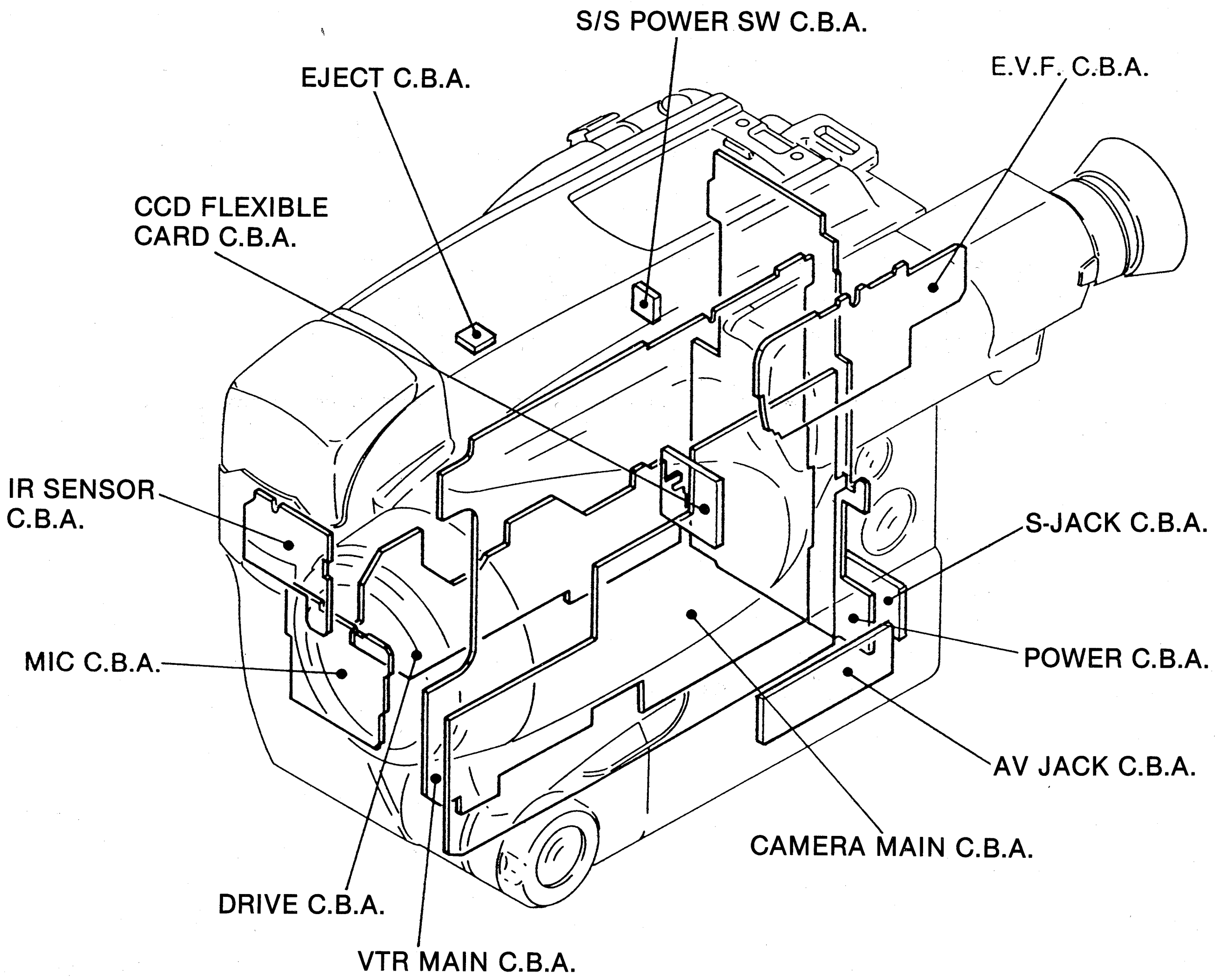
3-33. IR SENSOR C.B.A. (VEP23209A)


B
A
C401
R401
D401
B
C
E
R402
Q401
GND (GLAY)
IR OUT (BROWN)
VCC (ORANGE)
1
2
3
4

(COMPONENT SIDE)

(FOIL SIDE)

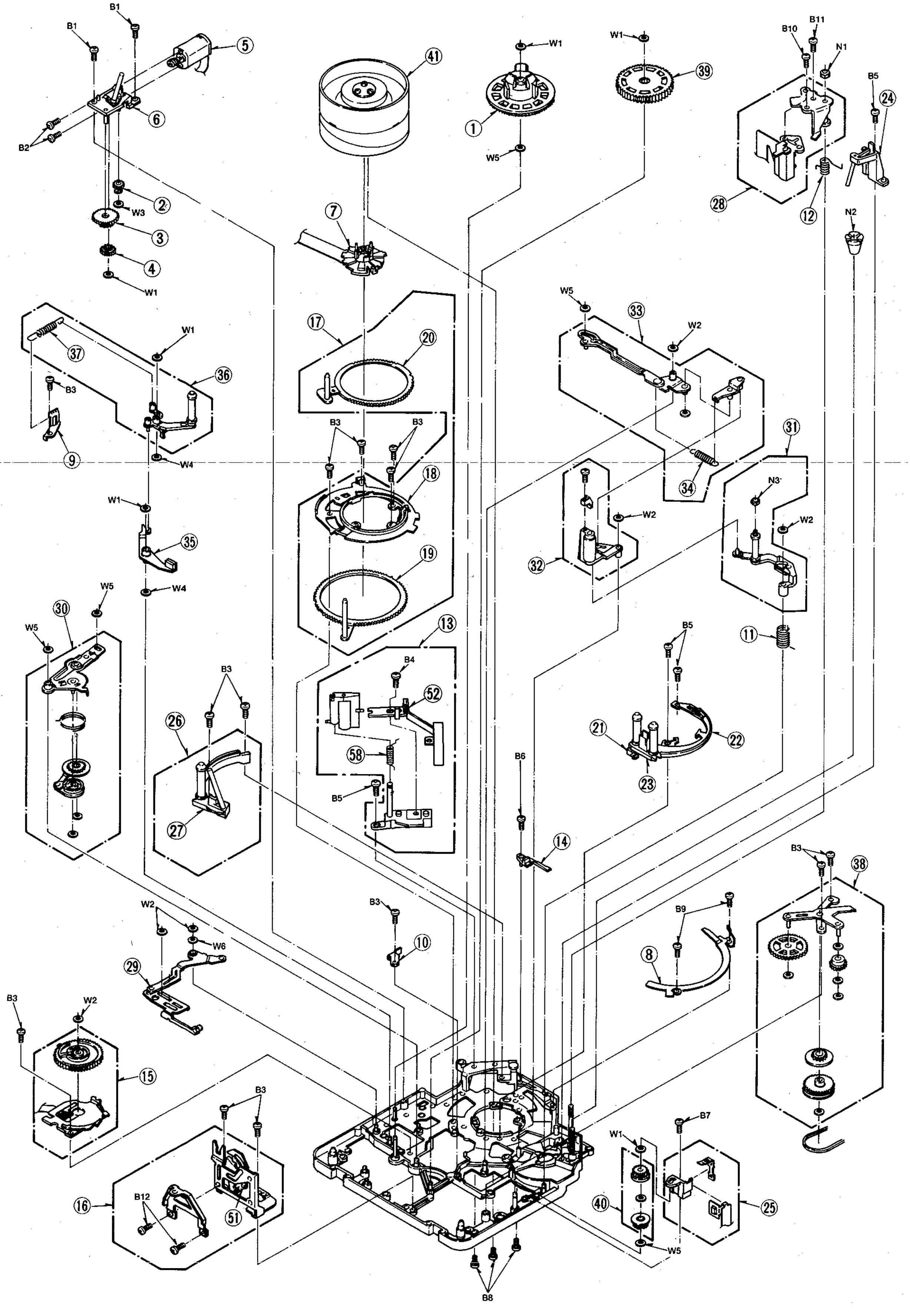
3-34. CIRCUIT BOARD LAYOUT


S/S POWER SW C.B.A.
EJECT C.B.A.
E.V.F. C.B.A.
CCD FLEXIBLE CARD C.B.A.
IR SENSOR C.B.A.
S-JACK C.B.A.
MIC C.B.A.
POWER C.B.A.
AV JACK C.B.A.
CAMERA MAIN C.B.A.
DRIVE C.B.A.
VTR MAIN C.B.A.

SECTION 4
EXPLODED VIEWS & PARTS LIST

4-1. EXPLODED VIEWS

❶ VTR MECHANISM SECTION (1)


B1
B1
⑤
⑥
B2
②
W3
③
④
W1
㊶
W1
①
W5
W1
㊴
B10
B11
N1
B5
㉔
㉘
⑫
N2
⑦
⑰
⑳
㊲
W1
㊱
B3
⑨
W4
B3
B3
⑱
⑲
W1
㉟
W4
W5
㉝
W2
㉞
㉛
N3
W2
W2
㉜
⑬
B4
(52)
(58)
B5
㉚
W5
W5
B3
㉖
㉗
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⑮
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B12
(51)
B7
W1
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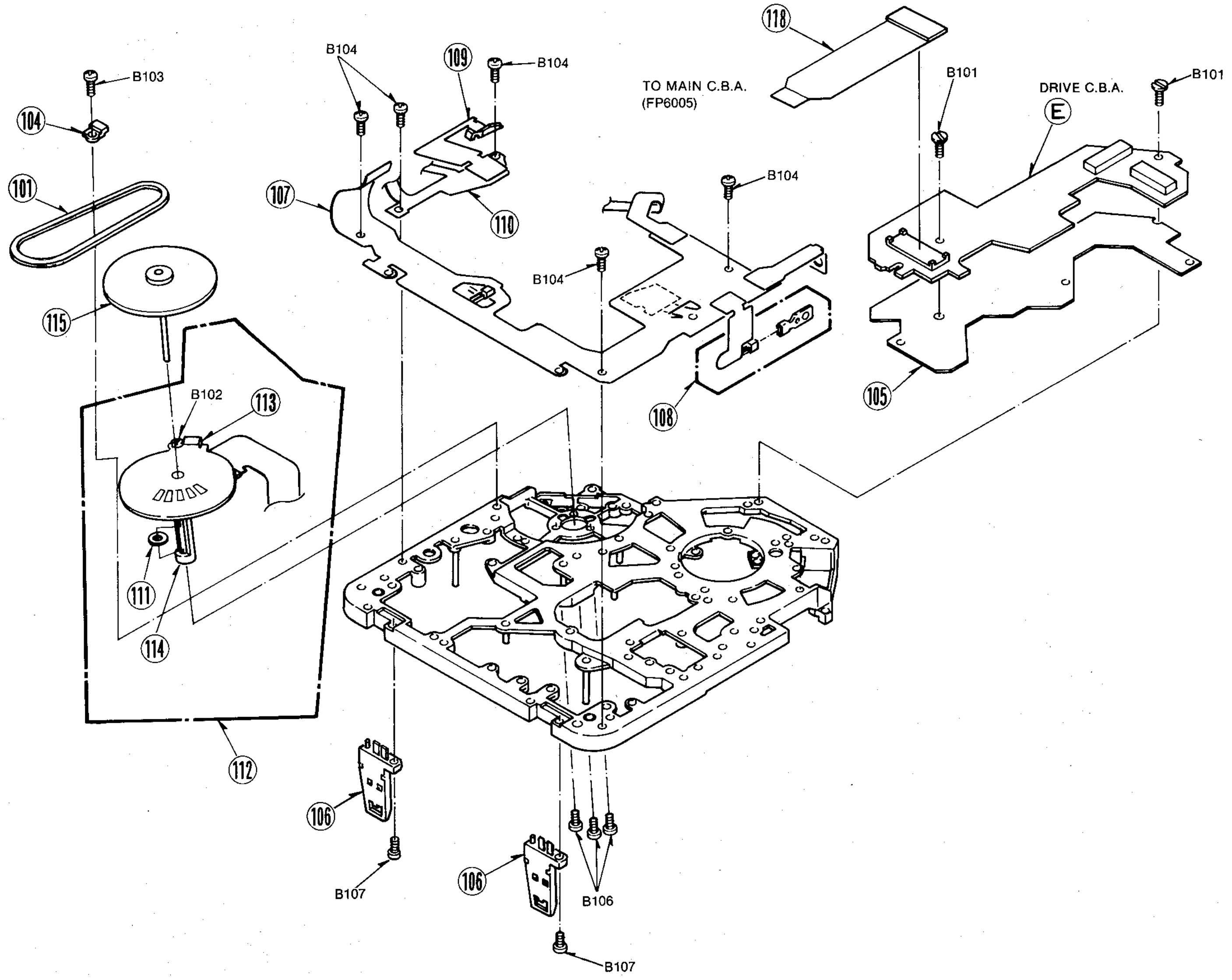
W5
B8

❷ VTR MECHANISM SECTION (2)



B104
109
B104
B103
TO MAIN C.B.A.
(FP6005)
118
B101
DRIVE C.B.A.
E
B101
104
101
107
110
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B104
115
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B102
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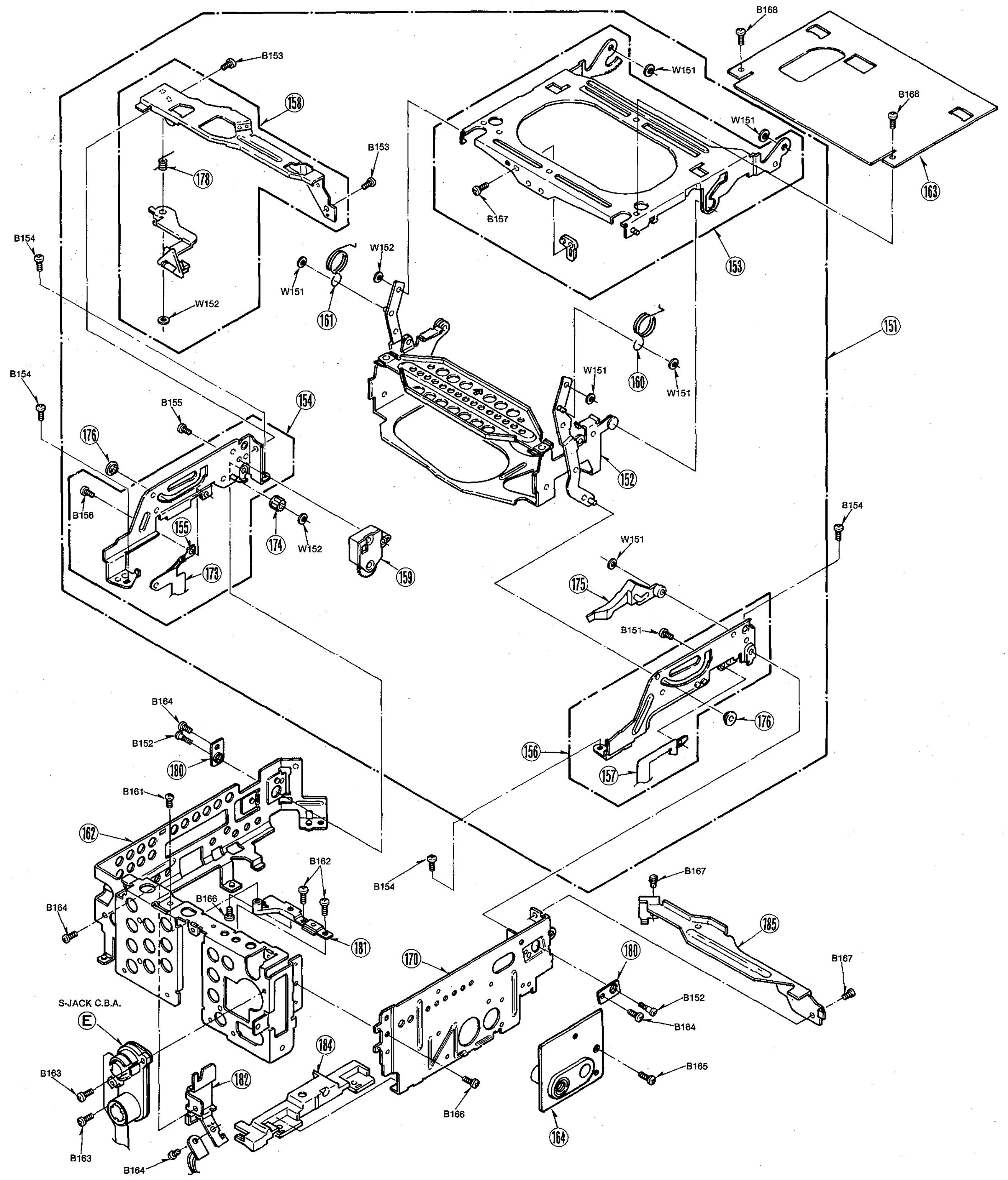
❸ VTR MECHANISM SECTION (3)



B168
B153
W151
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B168
W151
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B157
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W152
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B164
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B162
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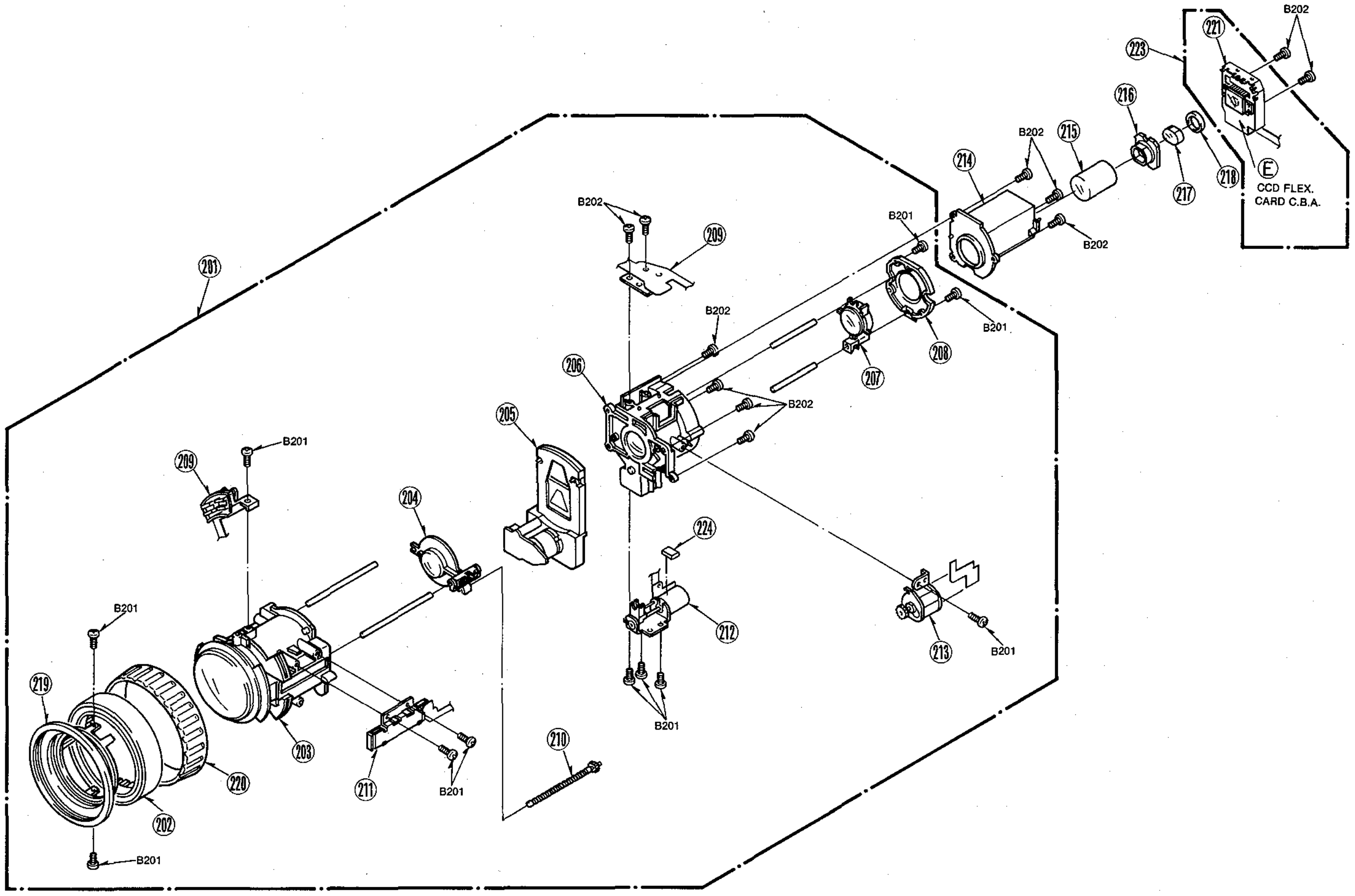
B167
S-JACK C.B.A.
E
B152
184
B164
B165
B163
182
B166
B163
164
B164

❹ CAMERA LENS SECTION



B202
221
223
216
215
B202
214
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218
E
CCD FLEX.
CARD C.B.A.
B202
B202
209
B201
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B202
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B201
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B202
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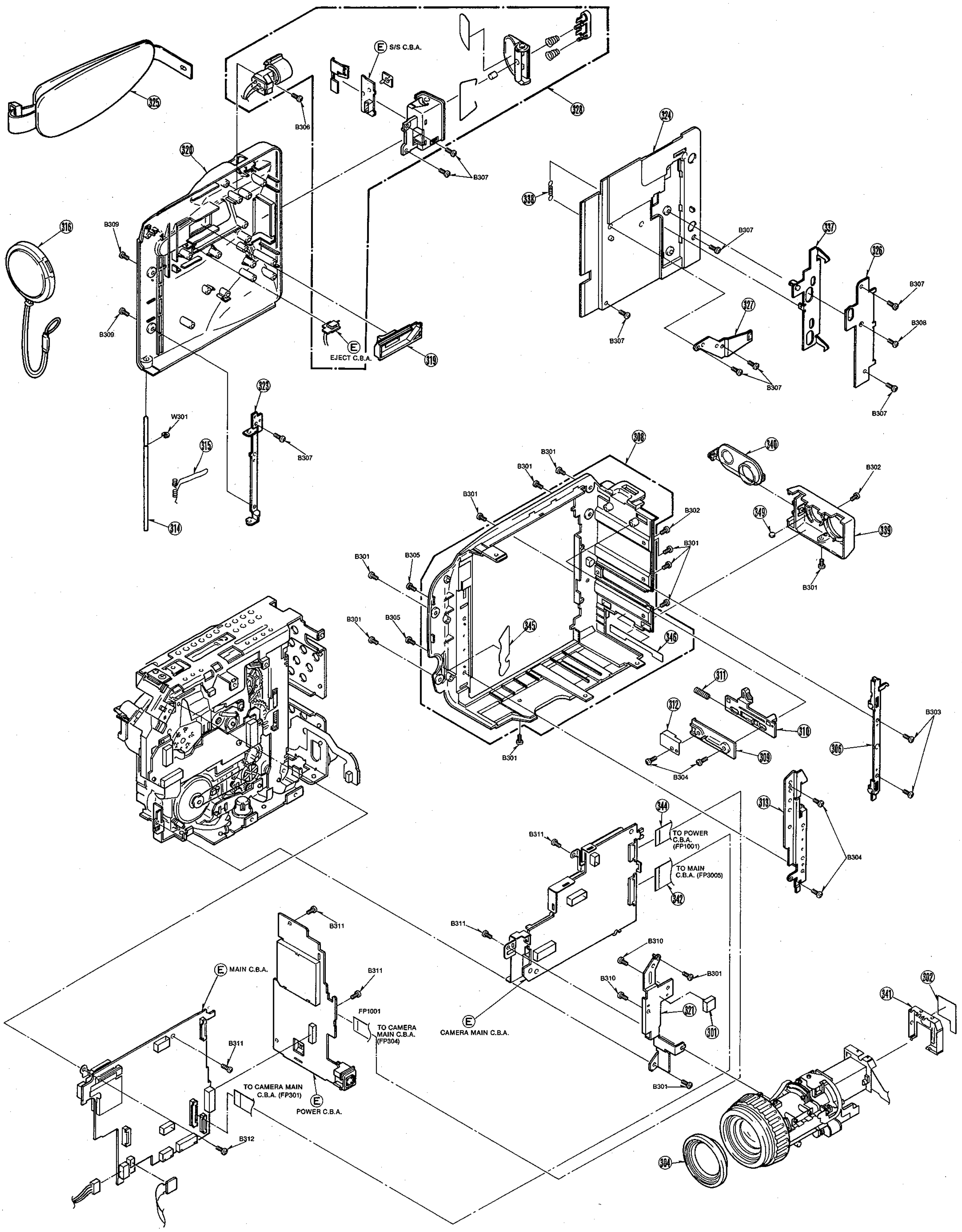
B201

❺ FRAME & CASING PARTS SECTION (1)



325
328
Ⓔ S/S C.B.A.
B306
B307
324
320
338
316
B309
B309
B307
337
326
B307
B308
327
B307
B307
Ⓔ EJECT C.B.A.
319
323
W301
B307
315
314
308
B301
B301
B301
340
B302
B302
349
339
B301
B301
B301
B305
B301
B305
345
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B301
311
312
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B304
306
B303
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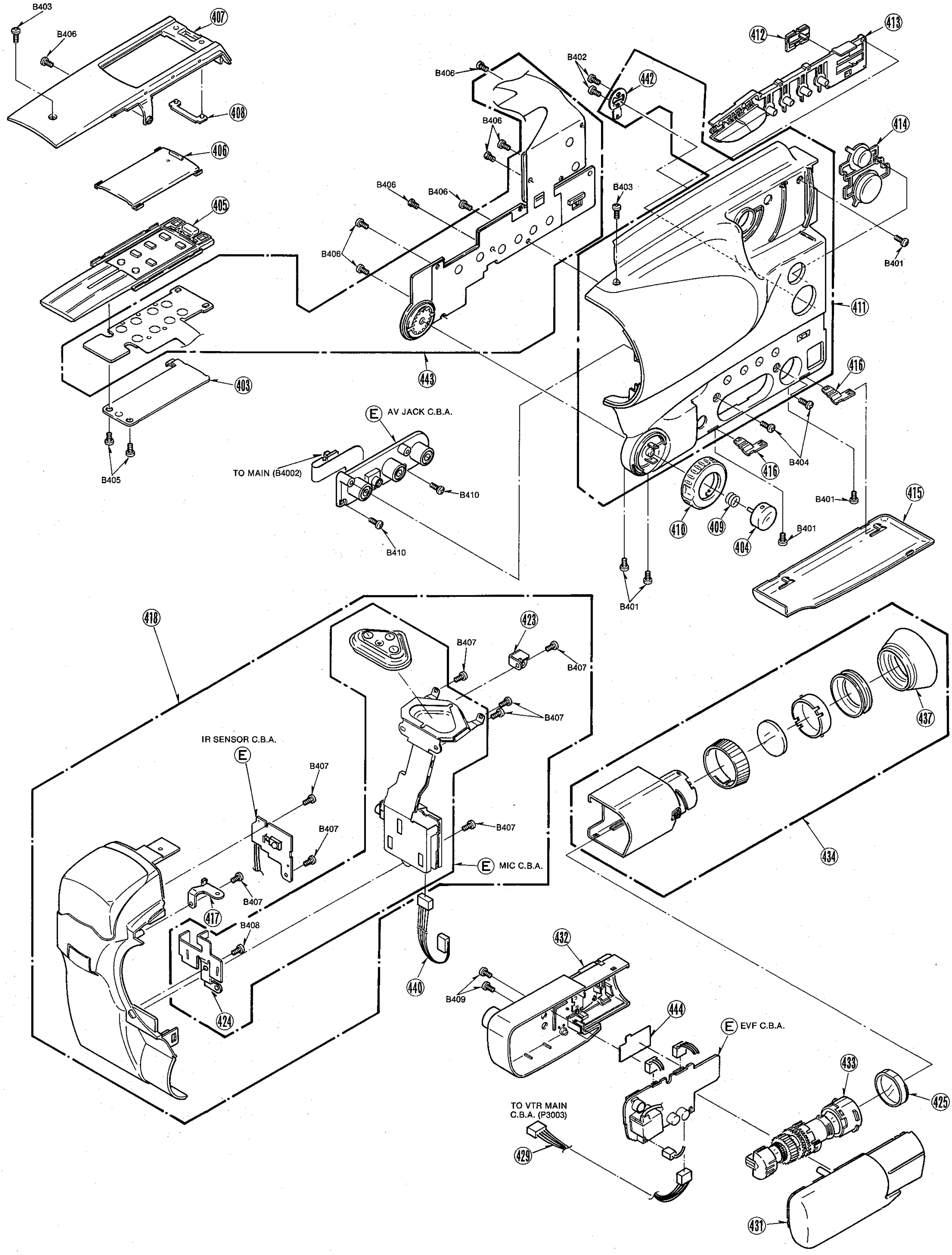
B304
B311
344
TO POWER C.B.A. (FP1001)
TO MAIN C.B.A. (FP3005)
342
B311
B311
B310
B301
B310
321
301
Ⓔ CAMERA MAIN C.B.A.
Ⓔ MAIN C.B.A.
B311
FP1001
TO CAMERA MAIN C.B.A. (FP304)
B311
TO CAMERA MAIN C.B.A. (FP301)
Ⓔ POWER C.B.A.
B312
B301
341
302
304

❻ FRAME & CASING PARTS SECTION (2)



B403
B406
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B402
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B404
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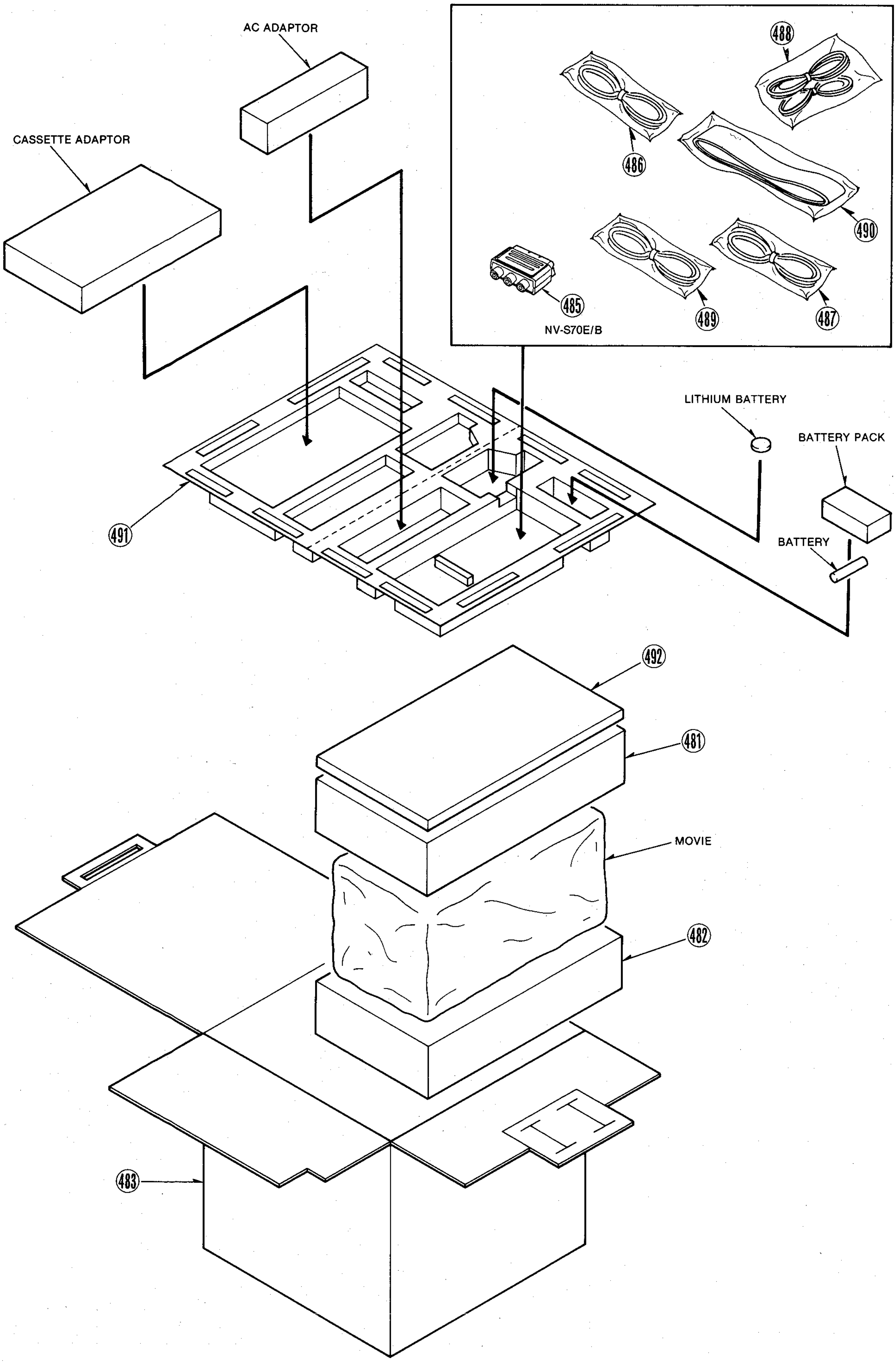
B401
B401
AV JACK C.B.A.
TO MAIN (B4002)
B410
B410
418
B407
423
B407
B407
IR SENSOR C.B.A.
B407
B407
B407
MIC C.B.A.
417
B407
B408
424
440
437
434
432
B409
444
EVF C.B.A.
433
425
TO VTR MAIN C.B.A. (P3003)
429
431

❼ PACKING PARTS & ACCESSORIES SECTION


AC ADAPTOR
CASSETTE ADAPTOR
488
486
490
489
487
485
NV-S70E/B
LITHIUM BATTERY
BATTERY PACK
BATTERY
491
492
481
MOVIE
482
483

4-2. MECHANICAL REPLACEMENT PARTS LIST

Note:1.* Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components, use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1(1)		VDR0226	REEL BASE (S)	1	
2(1)		VDG0821	BRAKE GEAR (A)	1	
3(1)		VDG0822	BRAKE GEAR (B)	1	
4(1)		VDG0823	BRAKE GEAR (C)	1	
5(1)		VEM0417	LOADING MOTOR (1) U.	1	
6(1)		VXA4527	MOTOR HOLDER U.	1	
7(1)		VEK7073	RT CONNECTOR U.	1	
8(1)		VMA8502	T-RING SLIDER	1	
9(1)		VMA8505	TEN-REG.SPRING HOOK	1	
10(1)		VMA8532	PENDULUM ARM HOLDER	1	
11(1)		VMB2362	T3 ARM SPRING	1	
12(1)		VMB2365	AC HEAD SPRING	1	
13(1)		VXA5108	S-GUIDE STAND U.	1	
14(1)		VMD1851	T-BOAT GUIDE	1	
15(1)		VSR0096	MODE SWITCH U.	1	
16(1)		VXA4515	LOCK BASE U.	1	
17(1)		VXA4517	LOADING RING U.	1	
18(1)		VMD1824	RING GUIDE	1	
19(1)		VXA4518	T-RING U.	1	
20(1)		VXA4519	S-RING U.	1	
21(1)		VEK5549	LED U.	1	
22(1)		VMD1828	T-RAIL	1	
23(1)		VXA4776	T-BOAT U.	1	
24(1)		VXA4528	T4 POST U.	1	
25(1)		VXA4997	T-REEL SENSOR U.	1	
26(1)		VXA4532	S-RAIL U.	1	
27(1)		VXA4525	S-BOAT U.	1	
28(1)		VXA5201	AC HEAD U.	1	
29(1)		VXL2130	EJECT LEVER (1)U.	1	
30(1)		VXL2133	SWING ARM U.	1	
31(1)		VXL2135	T3 ARM U.	1	
32(1)		VXL2139	PINCH ARM U.	1	
33(1)		VXL2140	PINCH DRIVE ARM U.	1	
34(1)		VMB2363	PINCH PRESSURE SPRING	1	
35(1)		VXL2144	PAD ARM U.	1	
36(1)		VXL2145	TEN-REG. ARM U.	1	
37(1)		VMB2364	TEN-REG. SPRING	1	
38(1)		VXL2147	IDLER U.	1	
39(1)		VXP1308	RELAY GEAR U.	1	
40(1)		VXP1313	T-DRIVE GEAR U.	1	
41(1)		VEG1144	CYLINDER U.	1	
51(1)		VMB2369	LOCK SPRING	1	
52(1)		VXS0120	EARTH BRUSH U.	1	
58(1)		VMB2661	S-GUIDE SPRING	1	
B1(1)		XQN14+B25FY	SCREW	2	
B2(1)		XQN14+A14	SCREW	2	
B3(1)		XQN14+B2	SCREW	13	
B4(1)		XQN14+BJ35	SCREW	1	
B5(1)		XQN14+B25FY	SCREW	3	
B6(1)		XQN14+B25FY	SCREW	1	
B7(1)		XQN14+B25FY	SCREW	1	
B8(1)		XQN14+C35R	SCREW	3	
B9(1)		VHD0711	SCREW	2	
B10(1)		VHD0700	SCREW	1	
B11(1)		VHD0699	SCREW	1	
B12(1)		XQN14+C2	SCREW	2	
N1(1)		VHN0047	NUT	1	
N2(1)		VHN0175	NUT	1	
N3(1)		VHN0172	NUT	1	
W1(1)		VMX2027	WASHER	6	
W2(1)		VMX2026	WASHER	7	
W3(1)		VMX2051	WASHER	1	
W4(1)		XWGV12Z3G	WASHER	2	
W5(1)		XWGV12Y3G	WASHER	5	
W6(1)		VMX2026	WASHER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
101(2)		VDV0232	CAPSTAN BELT	1	
104(2)		VMD1846	CAPSTAN STOPPER	1	
105(2)		VMZ1871	BARRIER	1	
106(2)		VSH0055	REC SAFETY SW U.	2	
107(2)		VWJ0719	MECH.FLEXIBLE CARD	1	
108(2)		VXA4511	PHOTO (L) U.	1	
109(2)		VXA4514	PHOTO (R) U.	1	
110(2)		VXA4997	T-REEL SENSOR U.	1	
111(2)		VDB1129	LOWER BEARING	1	
112(2)		VEK5516	STATOR U.	1	
113(2)		VBK0059	MR HEAD	1	
114(2)		VXD0134	HOUSING U.	1	
115(2)		VXP1303	ROTOR U.	1	
118(2)		VJB02431	DRIVE FLEX.CARD	1	
B101(2)		VHD0681	SCREW	2	
B102(2)		VHD0593	SCREW	1	
B103(2)		XQN14+B2	SCREW	1	
B104(2)		XQN14+C2R	SCREW	5	
B105(2)		XQN14+C2	SCREW	1	
B106(2)		XQN14+A3	SCREW	3	
B107(2)		XQN14+CF4	SCREW	2	
151(3)		VXA5198	GARAGE U.	1	
152(3)		VXA5199	HOLDER U.	1	
153(3)		VXA4863	GARAGE (1) U.	1	
154(3)		VXA4510	STAND (L) U.	1	
155(3)		VXA4511	PHOTO (L) U.	1	
156(3)		VXA4513	STAND (R) U.	1	
157(3)		VXA4514	PHOTO (R) U.	1	
158(3)		VXL2222	TAPE GUIDE U.	1	
159(3)		VXP1472	DUMPER	1	
160(3)		VMB2367	UP SPRING (R)	1	
161(3)		VMB2368	UP SPRING (L)	1	
162(3)		VMP4104	MAIN FRAME	1	
163(3)		VMZ2231	INNER COVER	1	
164(3)		VMD2227	TRIPOD FRAME	1	
170(3)		VMP4103	BOTTOM FRAME	1	
173(3)		VWJ0548	PHOTO FLEX.CARD	1	
174(3)		VDG0827	DUMPER RELAY GEAR	1	
175(3)		VML2580	TAPE OPEN LEVER	1	
176(3)		VDP1406	ARM HOLDER	2	
178(3)		VMB2498	TAPE GUIDE SPRING	1	
180(3)		VGQ3137	INSULATION PIECE (A)	2	
181(3)		VGQ3295	INSULATION PIECE (B)	1	
182(3)		VMP4342	DEW SENSOR ANGLE	1	
183(3)		VEK7029	DEW SENSOR	1	
184(3)		VGQ3504	AV JACK FIXING PIECE	1	
185(3)		VGQ3504	REINFORCEMENT ANGLE	1	
B151(3)		VHD0776	SCREW	1	
B152(3)		VHD0713	SCREW	2	
B153(3)		XQN14+B2	SCREW	2	
B154(3)		XQN14+C2R	SCREW	4	
B155(3)		XQN16+AJ8	SCREW	1	
B156(3)		XQN14+CM2	SCREW	1	
B157(3)		XQS14+A25FZ	SCREW	1	
B161(3)		XQN2+AJ4	SCREW	1	
B162(3)		XQN2+CF4	SCREW	2	
B163(3)		XQN2+C5	SCREW	2	
B164(3)		XQN2+C2	SCREW	4	
B165(3)		XQS2+C4	SCREW	1	
B166(3)		XQN2+CF5	SCREW	2	
B167(3)		XQN2+CF3	SCREW	2	
B168(3)		XQN2+C2FZ	SCREW	2	
W151(3)		VMX1042	WASHER	6	
W152(3)		VMX1061	WASHER	3	
201(4)		VXW0162	LENS U.	1	
202(4)		VDW0208	FOCUS RING	1	
203(4)		VXQ0347	LENS MAIN U.	1	
204(4)		VXP1390	2ND MOVING FRAME U.	1	
205(4)		VXL2389	IRIS U.	1	
206(4)		VXQ0348	MASTER FLANGE	1	
207(4)		VXP1391	4TH MOVING FRAME U.	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
208(4)		VMD2053	POLE GUIDE	1	
209(4)		VEK6157	LENS FLEX. U.	1	
210(4)		VXP1393	SCREW SHAFT U.	1	
211(4)		EVAJHJJ01B14	ZOOM ENCODER	1	
212(4)		VEM0436	FOCUS MOTOR U.	1	
213(4)		VEM0437	ZOOM MOTOR U.	1	
214(4)		VDW0210	MASTER FLANGE	1	
215(4)		VDL0341	GLASS	1	
216(4)		VDS0030	CRYSTAL FILTER HOLDER	1	
217(4)		VDL0322	CRYSTAL FILTER	1	
218(4)		VMX1846	CCD CUSHION	1	
219(4)		VDW0209	FOCUS RING BASE	1	
220(4)		VDW0212	FOCUS RING RUBBER	1	
221(4)		VSC3920	CCD SHIELD CASE	1	
223(4)		VEK6611	CCD UNIT	1	
224(4)		VMT0482	CUSHION	1	
B201(4)		XQN16+CJ5	SCREW	11	
B202(4)		XQN16+CJ6	SCREW	9	
N201(4)		VHN0188	NUT	1	
301(5)		VGQ3626	SILENCER SHEET	1	
302(5)		VGQ3625	CCD SHIELD CASE BARRIER	1	
304(5)		VDW0202	LENS HOOD	1	
306(5)		VYK4655	CASSETTE LOCK ANGLE U.	1	
308(5)		VYK5883	SIDE CASE (L)(1)U.	1	
309(5)		VGQ3139	BATT. LOCK HOLD PLATE	1	
310(5)		VGQ3352	BATT. LOCK LEVER	1	
311(5)		VMB2483	BATT. LOCK SPRING	1	
312(5)		VMZ2215	BATT. BLIND BARRIER	1	
313(5)		VMP3909	HINGE(A)	1	
314(5)		VMS4762	SHAFT	1	
315(5)		VMB2669	SPRING	1	
316(5)		VYF1987	HOOD CAP U.	1	
319(5)		VGU6428	LOCK RELEACE (EJECT) KNOB	1	
320(5)		VYP5622	CASSETTE COVER (1) UNIT	1	
321(5)		VMP4106	CAMERA FRAME	1	
323(5)		VMP3910	HINGE(B)	1	
324(5)		VGQ3281	CASSETTE HOLDER	1	
325(5)		VYC0627	GRIP BELT U.	1	
326(5)		VMP3912	CASSETTE LOCK ANGLE HOLDER	1	
327(5)		VMC0992	CASSETTE DOWN SPRING	1	
328(5)		VXU1246	GRIP OPERATION U.	1	
337(5)		VYK4656	CASSETTE LOCK ANGLE (B)U.	1	
338(5)		VMB2384	CASSETTE LOCK SPRING	1	
339(5)		VKM3880	S-JACK PIECE	1	NV-S70E/B
339(5)		VKM3871	S-JACK PIECE	1	NV-S70A
340(5)		VKF2194	S-JACK COVER	1	
341(5)		VSC3919	CCD SHIELD CASE (UPPER)	1	
342(5)		VWJ26C8070AA	CAM-MAIN FLEX. CARD	1	
344(5)		VWJ16C8070AA	CAM-POWER FLEX.CARD	1	
345(5)		VGQ3315	HOOKING BLINDER SHEET	1	
346(5)		VMZ2220	BATT. BLINDER BARRIER (B)	1	
349(5)		VMX2307	S-JACK SPACER	1	
B301(5)		VHD0729	SCREW	12	
B302(5)		XQN2+CF55FZ	SCREW	2	
B303(5)		XQN2+AJ4	SCREW	2	
B304(5)		XTB2+4G	SCREW	4	
B305(5)		XQS2+C3FZ	SCREW	2	
B306(5)		XQN2+CJ8FZ	SCREW	1	
B308(5)		XQS2+CJ6FZ	SCREW	1	
B309(5)		XQN2+C4FZ	SCREW	2	
B310(5)		XQN2+CJ4FC	SCREW	2	
403(6)		VMP4169	VTR OPERATION HOLD PLATE	1	
404(6)		VGU6611	BACKLIGHT BUTTON	1	
405(6)		VYK5298	VTR OPETRATION PANEL U.	1	
406(6)		VGQ3495	CURSOR	1	
407(6)		VKM3881	TOP CASE	1	
408(6)		VGL0575	PANEL LIGHT	1	
409(6)		VMB2531	MODE KNOB SPRING	1	
410(6)		VGU6460	MODE SELECT LEVER	1	
411(6)		VYK5879	SIDE CASE (R)(1)U.	1	
412(6)		VGU6396	POWER SAVE KNOB	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
413(6)		VGU6678	CAMERA OPERATION BUTTON	1	
414(6)		VGU6449	FADE/DATE BUTTON	1	
415(6)		VKF2197	AV JACK DOOR	1	
416(6)		VKC0420	AV JACK HINGE	2	
417(6)		VMP4341	FRONT FIXING ANGLE (A)	1	
418(6)		VYK5863	FRONT CASE U.	1	
423(6)		VMP4171	FRONT FIXING ANGLE (B)	1	
424(6)		VMP4221	FRONT FIXING ANGLE (A)	1	
425(6)		VKW1806	PROTECTION PANEL	1	
428(6)		VGQ3452	SILENCE SHEET	1	
429(6)		VEE8882	EVF CONNECTOR U.	1	
431(6)		VKM3883	EVF CASE (R)	1	
432(6)		VYK5884	EVF CASE (L)U.	1	
433(6)		M01KUA07WB03	ITC	1	
434(6)		VYQ1030	SLIDE CASE U.	1	
437(6)		VMG0793	EYE CAP	1	
440(6)		VEE8881	MIC CONNECTOR CABLE	1	
442(6)		VMC1006	ROTATION LOCK SPRING	1	
443(6)		ESU39019	CAM.OPTION U.	1	
444(6)		VGQ3606	EVF IC BARRIER	1	
B402(6)		VHD0768	SCREW	2	
B403(6)		XQN2+CF55FZ	SCREW	2	
B405(6)		XQS2+CQ3	SCREW	2	
B406(6)		XQN2+CJ4	SCREW	8	
B407(6)		XQN16+CJ4	SCREW	8	
B408(6)		XQN2+C2	SCREW	1	
B409(6)		XQN2+CJ8FZ	SCREW	2	
B410(6)		XQN2+CF8	SCREW	2	
481(7)		VPN3741	CUSHION (UPPER)	1	
482(7)		VPN3742	CUSHION (LOWER)	1	
483(7)		VPG7517	PACKING CASE	1	NV-S70E
483(7)		VPG7518	PACKING CASE	1	NV-S70B
483(7)		VPG7519	PACKING CASE	1	NV-S70A
485(7)		VFA0151	21 PIN ADAPTOR	1	NV-S70E/B
486(7)		VJA0664	AC CABLE	1	NV-S70E
486(7)		VJA0733	AC CABLE	1	NV-S70B
487(7)		VJA0769	DC INPUT CABLE	1	
488(7)		VJA0788	AV OUTPUT CABLE	1	
489(7)		VJA0658	4PIN S-VHS CABLE	1	
490(7)		VFC1757	SHOLDER STRAP	1	
491(7)		VPN3619	ACCESSORY BOX	1	
492(7)		VQT5749	OPERATING INSTRUCTIONS	1	NV-S70E
			(ENGLISH/GERMAN/FRENCH		
			/SPANISH)		
492(7)		VQT5750	OPERATING INSTRUCTIONS	1	NV-S70E
			(ITALIAN/DUTCH/SWEDISH		
			/DANISH)		
492(7)		VQT5747	OPERATING INSTRUCTIONS	1	NV-S70B
			(ENGLISH)		
492(7)		VQT5748	OPERATING INSTRUCTIONS	1	NV-S70A
			(ENGLISH)		
			**** JIG & TOOLS *****		
			------ ELECTRICAL -------		
		VFM8180HUPF	VHS-C ALIGMENT TAPE	1	PAL
		VFK0374	COLOUR TEMP.CONV.FILRTER	1	(C12) OR VFK0713
		VFK0375	COLOUR TEMP.CONV.FILRTER	1	(C2) OR VFK0716
		VFK0644	EVR FIXTURE	1	
		VFK0701ROM24	ROM	1	FOR EVR FIXTURE
		VFK0766A	EVR CONNECTION CABLE 5P	1	FOR EVR FIXTURE
		VFK0734W	MEASUREMENT CABLE 24P	1	FOR EVR FIXTURE
		VFK0972	FLAT CABLE 16P	1	
		VFK0985	FLAT CABLE 23P	1	
		VFK0977	FLAT CABLE 20P	1	
		VFK0979	FLAT CABLE 16P	1	
		VFK0980	FLAT CABLE 9P	1	
		VFK0978	FLAT CABLE 6P	1	
		VFK0841	EXTENSION CABLE 28P	1	
		VFK0949	FLAT CABLE 22P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VFK0973	*FLAT CABLE 26P*	1	
		VFK0974	EXTENSION CABLE 8P	1	
		VFK0976	EXTENSION CABLE 5P	1	
		VFK0975	EXTENSION CABLE 3P	1	
			---- MECHANICAL ------		
		VFK0743	H-POSITION ADJUSTMENT	1	
		VFK0824	ASTERISK TYPE RENCH	1	
		VFK0335	RETAINING RING REMOVER	1	
		VFK0329	POST ADJ. SCREW DRIVER	1	
		VFK0326	HEX WRENCH SET	1	
		VFK27	HEAD CLEANING STICK	1	
		MOR265	MORLTONE GREASE	1	

4-3. ELECTRICAL REPLACEMENT PARTS LIST

Note:1.Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE : Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.
3.Unless otherwise specified,
All resistors are in OHMS , K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uuF.
4.The P.C.Board units marked width'■'show below the main assembled parts.
5.The marking(RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP23204A	CAMERA MAIN C.B.A.	1	(RTL)
			(Page:4-11)		
		VEP22133A	CCD FLEX. CARD C.B.A.	1	(RTL)
			(Page:4-13)		
		VEP23209A	IR SENSOR C.B.A.	1	(RTL)
			(Page:4-13)		
		ESU39019	CAMERA OPERATION UNIT	1	(RTL)
		VEP28086A	E.V.F C.B.A.	1	(RTL)
			(Page:4-13)		
		VEK7148	MIC UNIT C.B.A.	1	
			(Page:4-14)		
		VEP03B15A	VTR MAIN C.B.A.	1	(RTL)
			(Page:4-14)		
		VEP01594A	POWER C.B.A.	1	(RTL)
			(Page:4-19)		
		VEP02418A	DRIVE C.B.A.	1	(RTL)
			(Page:4-20)		
		VEK7103	AV JACK C.B.A.	1	(RTL)
			(Page:4-21)		
		VEP00U80A	EJECT C.B.A.	1	(RTL)
			(Page:4-21)		
		VEP00T11D	S/S C.B.A.	1	(RTL)
			(Page:4-21)		
		VEK7104	S-JACK UNIT	1	(RTL)
			(Page:4-21)		
	■	VEP23204A	CAMERA MAIN C.B.A.		(RTL)
B202		VJP2962A012	CONNECTOR (MALE) 12P	1	
B302		VJP2962A024	CONNECTOR (MALE) 24P	1	
C202,03		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C204		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C209		ECST1CY335Z	T.CAPACITOR 16V 3.3U	1	
C211		ECST1GX155Z	T.CAPACITOR 40V 1.5U	1	
C213,14		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C216,17		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	2	
C222		ECUX1H060CCV	C.CAPACITOR CH 50V 6P	1	
C223		ECRJA020E11	V.CAPACITOR	1	
C224		ECST1AX106Z	T.CAPACITOR 10V 10U	1	
C227		ECST0JX226Z	T.CAPACITOR 6.3V 22U	1	
C228		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C229		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C230		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C231		ECST0GY106Z	T.CAPACITOR 4V 10U	1	
C232		ECST0GX226Z	T.CAPACITOR 4V 22U	1	
C233		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C234		ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C235		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C236		ECST0JX226Z	T.CAPACITOR 6.3V 22U	1	
C237-39		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C241		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C242		ECUX1H473ZFV	C.CAPACITOR CH 50V 0.047U	1	
C243		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C245		ECST1DX475Z	T.CAPACITOR 20V 4.7U	1	
C246		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C247		ECUX1H040CCV	C.CAPACITOR CH 50V 4P	1	
C248		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C249		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C250		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C252		ECUX1H100CCV	C.CAPACITOR 50V 10P	1	
C254		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C255		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C256,57		ECUX1H100CCV	C.CAPACITOR 50V 10P	2	
C259		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C262		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C263		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C266		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C269		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C270		ECUX1H050CCV	C.CAPACITOR CH 50V 5P	1	
C271		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C272		ECUX1H100CCV	C.CAPACITOR 50V 10P	1	
C273		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C274		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C275		ECUX1H150JCV	C.CAPACITOR CH 50V 15P	1	
C276-78		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C280		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C301		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C302,03		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C304		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C305		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C307		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	
C308		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C310		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C312		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C313		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C314		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C315-17		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C318-20		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	3	
C322,23		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C324		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C326		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C329		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C330		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C331,32		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C334,35		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C338		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C344		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C345,46		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C347		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C348		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C350		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C351		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C352		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C353		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C360		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C380		ECUX1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C371-75		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	5	
C701		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C703,04		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C709		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C713		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C718		ECEV1CA470P	E.CAPACITOR 16V 47U	1	
C719		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C721		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C724,25		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C729		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C731		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C732		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C740,41		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C742		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C761		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C762		ECEV0JA101	E.CAPACITOR 6.3V 100U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D201		MA110	DIODE	1	
D203		MA110	DIODE	1	
D207-09		MA110	DIODE	3	
D301		MA728	DIODE	1	
D303,04		MA728	DIODE	2	
D305		MA110	DIODE	1	
D306		MA728	DIODE	1	
FL201		VLF1058	FILTER	1	
FP301		VJS3319D026	CONNECTOR (FEMALE) 26P	1	
FP304		VJS3320D016	CONNECTOR (FEMALE) 16P	1	
FP701		VJS2958B024	CONNECTOR (FEMALE) 24P	1	
IC201		VEFH38A	IC	1	
IC202		TC7SU04F	IC	1	
IC203		AN2018S	IC	1	
IC204		AN2032FAP	IC	1	
IC302		MN673221	IC	1	
IC303		MN65703T	IC	1	
IC304		MN7A004VSW	IC	1	
IC305		MN1864002M3B	IC	1	
IC306		MN5203	IC	1	
IC307		M62352GP	IC	1	
IC308		M62353GP	IC	1	
IC309		X25040S-3C70	IC	1	
IC701		TC4S584F	IC	1	
IC702		LB1830M	IC	1	
IC703		TB6512AF	IC	1	
IC706,07		LM324DB	IC	2	
L203-05		VLQ0426J150	COIL 15UH	3	
L206		VLQ0464	COIL	1	
L207		VLQ0426J680	COIL 68UH	1	
L208		VLQ0426J330	COIL 33UH	1	
L209		VLP0154	COIL H	1	
L210		VLQ0426J390	COIL 39UH	1	
L211,12		VLP0154	COIL H	2	
L213		VLQ0426J150	COIL 15UH	1	
L214		VLP0146	COIL H	1	
L224		VLP0145	COIL	1	
L301		VLQ0464	COIL	1	
L302		VLP0140	COIL	1	
L303-05		VLQ0319K220	COIL 22UH	3	
L308		VLQ0319K220	COIL 22UH	1	
L309		VLP0140	COIL	1	
L310		VLQ0319K220	COIL 22UH	1	
L311		VLP0140	COIL	1	
L312		VLQ0163J330	COIL 33UH	1	
L313-18		VLQ0319K220	COIL 22UH	6	
L319		VLP0140	COIL	1	
L321		VLQ0319K220	COIL 22UH	1	
L322-24		VLP0146	COIL H	3	
L701		VLQ0319K220	COIL 22UH	1	
L703		VLQ0319K220	COIL 22UH	1	
L706		VLQ0163J220	COIL 22UH	1	
L707		VLQ0319F150	COIL 15UH	1	
P305		VJP3172D008	CONNECTOR (MALE) 8P	1	
P701		VJP3172B003	CONNECTOR (MALE) 3P	1	
Q201		2SD2216	TRANSISTOR	1	
Q202		XP4654	TRANSISTOR-TRANSISTOR	1	
Q207,08		XP4654	TRANSISTOR-TRANSISTOR	2	
Q210		2SB1462	TRANSISTOR	1	
Q212		XP4601	TRANSISTOR-RESISTOR	1	
Q704,05		2SD2216	TRANSISTOR	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR301		UN9212	TRANSISTOR-RESISTOR	1	
QR701,02		UN9211	TRANSISTOR-RESISTOR	2	
R201		ERJ2GEJ105	M.RESISTOR CH 2W 1M	1	
R204		ERJ2GEJ105	M.RESISTOR CH 2W 1M	1	
R205		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R211		ERJ2GEJ105	M.RESISTOR CH 2W 1M	1	
R213		ERJ2GEJ182	M.RESISTOR CH 2W 1.8K	1	
R214		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R218		ERJ2GEJ101	M.RESISTOR CH 2W 1K	1	
R219		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R220		ERJ2GEJ221	M.RESISTOR CH 2W 220	1	
R221		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R224		ERJ2GEJ330	M.RESISTOR CH 2W 33	1	
R227		ERJ2GEJ331	M.RESISTOR CH 2W 330	1	
R228		ERJ2GEJ103	M.RESISTOR CH 2W 10K	1	
R229		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R230		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R231		ERJ2GEJ822	M.RESISTOR CH 2W 8.2K	1	
R232		ERJ2GEJ183	M.RESISTOR CH 2W 18K	1	
R236		ERJ2GEJ681	M.RESISTOR CH 2W 680	1	
R238		ERJ2GEJ272	M.RESISTOR CH 2W 2.7K	1	
R239		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R240		ERJ2GEJ471	M.RESISTOR CH 2W 470	1	
R243		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R246		ERJ2GEJ823	M.RESISTOR CH 2W 82K	1	
R247		ERJ2GEJ392	M.RESISTOR CH 2W 3.9K	1	
R248		ERJ2GEJ122	M.RESISTOR CH 2W 1.2K	1	
R250		ERJ2GEJ331	M.RESISTOR CH 2W 330	1	
R251		ERJ2GEJ222	M.RESISTOR CH 2W 2.2K	1	
R252		ERJ2GEJ332	M.RESISTOR CH 2W 3.3K	1	
R253		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R254-56		ERJ2GEJ102	M.RESISTOR CH 2W 1K	3	
R257		ERJ2GEJ331	M.RESISTOR CH 2W 330	1	
R258		ERJ2GEJ183	M.RESISTOR CH 2W 18K	1	
R259		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R260		ERJ2GEJ102	M.RESISTOR CH 2W 1K	1	
R261		ERJ2GEJ101	M.RESISTOR CH 2W 1K	1	
R262		ERJ2GEJ331	M.RESISTOR CH 2W 330	1	
R263		ERJ2GEJ472	M.RESISTOR CH 2W 4.7K	1	
R270		ERJ2GEJ154	M.RESISTOR CH 2W 150K	1	
R272		ERJ2GEJ393	M.RESISTOR CH 2W 39K	1	
R277		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R281		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R282		ERJ2GEJ101	M.RESISTOR CH 2W 1K	1	
R283-86		ERJ2GEJ330	M.RESISTOR CH 2W 33	4	
R287		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R288,89		ERJ2GEJ330	M.RESISTOR CH 2W 33	2	
R291		ERJ2GEJ152	M.RESISTOR CH 2W 1.5K	1	
R292		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R293		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R294		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R295		ERJ2GEJ331	M.RESISTOR CH 2W 330	1	
R301		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R302,03		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R304,05		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R307		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R310		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R311		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R312,13		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	2	
R314		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R315		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R322		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R323		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R325		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R327,28		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R330		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R332		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R333		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R336		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R337		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R339		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R342		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R343		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R348		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R355-58		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	4	
R359		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R360		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R361		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R364		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R371		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R374		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R386-88		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	3	
R393		ERJ3GEYJ4R7	M.RESISTOR CH 1/16W 4.7	1	
R394		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R395		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R701		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R702		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R703		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R706,07		ERJ3GEYJ3R3	M.RESISTOR CH 1/16W 3.3	2	
R708		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R711		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R712		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R714		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R716		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R717		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R718		ERJ3GEYJ225	M.RESISTOR CH 1/16W 2.2M	1	
R719		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R721		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R722		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R723		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R724		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R725		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R726		ERJ3GEYG122	M.RESISTOR CH 1/16W 1.2K	1	
R727		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R728		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R729		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R730		ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R731		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R732		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R733		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R734,35		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	2	
R736		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R737		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R739		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R740,41		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R742		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R743		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R744		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R745		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R746		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R747		ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R748		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R749		ERJ3GEYG103	M.RESISTOR CH 1/16W 10K	1	
R750		ERJ3GEYG303	M.RESISTOR CH 1/16W 30K	1	
R752		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R754		ERJ3GEYG113	M.RESISTOR CH 1/16W 11K	1	
R755		ERJ3GEYG393	M.RESISTOR CH 1/16W 39K	1	
R756		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R759,60		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	2	
R762		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R790		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
RA301-04		EXBV8V102J	RESISTOR-RESISTOR	4	
RA305		EXBV8V473J	RESISTOR-RESISTOR	1	
RA306,07		EXBV4V473J	RESISTOR-RESISTOR	2	
RA308		EXBV4V392J	RESISTOR-RESISTOR	1	
RA309		EXBV4V473J	RESISTOR-RESISTOR	1	
TH701		VRT0032K152	TRANSFORMER	1	
X201		VSX0591	CRYSTAL OSCILLATOR	1	
X301		EFOS1605E5	CRYSTAL OSCILLATOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			MISCELLANEOUS		
		VSC4068	PROCESS SHILED COVER	1	
		VMP4346	LENS DRIVE FREME	1	
	■	VEP22133A	CCD FLEX.CARD C.B.A.		(RTL)
B291		VJS3500C012	CONNECTOR (FEMALE) 12P	1	
C292		ECST1VX225Z	T.CAPACITOR 35V 2.2U	1	
C293,C294		ECUM1E473ZFN	C.CAPACITOR 25V 0.047U	2	
C295		ECUM1E104ZFN	C.CAPACITOR 25V 0.1U	1	
D291		MA153	DIODE	1	
Q291		2SC2295	TRANSISTOR	1	
R291		ERJ6GEYG560	M.RESISTOR CH 1/16W 56	1	
R292		ERJ6GEYF472	M.RESISTOR CH 1/16W 4.7K	1	
W291		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
			MISCELLANEOUS		
		VJB22133	FLEX. CARD	1	
	■	VEP23209A	IR SENSOR C.B.A.		(RTL)
C401		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
D401		PH310-1	DIODE	1	
PJ401		VJS3172B003	CONNECTOR (FEMALE)	1	
Q401		2SD1030	TRANSISTOR	1	
R401		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R402		ERJ3GEYJ125	M.RESISTOR CH 1/16W 1.2K	1	
			MISCELLANEOUS		
		VEE8883	CABLE	1	
	■	VEP28086A	E.V.F C.B.A.		(RTL)
C801		ECQB1C104JB	P.CAPACITOR CH 16V 0.1U	1	
C802-04		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	3	
C805		ECST0JX226Z	T.CAPACITOR 6.3V 22U	1	
C806		ECUX1C123KBV	C.CAPACITOR CH 16V 0.012U	1	
C807		ECUM1C105KBM	C.CAPACITOR CH 16V 1U	1	
C808		ECEV0JV101ZP	E.CAPACITOR 6.3V 100U	1	
C809		ECEV1CA470F	E.CAPACITOR 16V 47U	1	
C810		ECUM2A362JUM	C.CAPACITOR CH 3600P	1	
C811		ECST1AD476Z	T.CAPACITOR 10V 47U	1	
C812		ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C813		ECUM2J221KBM	C.CAPACITOR 630V 220P	1	
C814		ECEV1HA010	E.CAPACITOR 50V 1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C815		ECUM2H331KBM	C.CAPACITOR 500V 330P	1	
C816		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C817		ECST0JX226Z	T.CAPACITOR 6.3V 22U	1	
C831		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C861		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C862		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C863		ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	1	
D803		SFPL-52	DIODE	1	
IC801		AN2516S	IC	1	
L801		VLQ0319K470	COIL 47UH	1	
L802		ELH8LE204R	COIL H	1	
L804		VLQ0163J680	COIL 68UH	1	
L805		VLQ0319K100	COIL 10UH	1	
L806		ELJPA470KB	COIL	1	
P801		VJP3499D004	CONNECTOR (MALE) 4P	1	
P802		VJP3172B005	CONNECTOR (MALE) 5P	1	
P803		VJP3125D003	CONNECTOR (MALE) 3P	1	
P804		VJP1229T	CONNECTOR (MALE) 2P	1	
Q802		2SD968A-S	TRANSISTOR	1	
Q803,04		2SA1748	TRANSISTOR	2	
Q805,06		2SD2216	TRANSISTOR	2	
QR881		UN5212	TRANSISTOR-RESISTOR	1	
QR882		UN2130X	TRANSISTOR-RESISTOR	1	
R801		ERJ6ENF4422	M.RESISTOR	1	
R802		ERJ6GEYJ3R9	M.RESISTOR CH 1/10W 3.9	1	
R805		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R808		VRE0071E242	M.RESISTOR	1	
R809		ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
R810		VRE0071E104	M.RESISTOR	1	
R815		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R816,17		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R818		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R819,20		ERJ6GEYJ275	M.RESISTOR CH 1/10W 2.7M	2	
R821		ERJ6GEYJ105	M.RESISTOR CH 1/10W 1M	1	
R823		ERJ3GEYJ8R2	M.RESISTOR CH 1/16W 8.2	1	
R829		ERJ6ENF4222	M.RESISTOR	1	
R833		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R834		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R835		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R840		ERJ8GEYJ685	M.RESISTOR CH 1/8W 6.8M	1	
R841,42		ERJ6GEYJ475	M.RESISTOR CH 1/10W 4.7M	2	
R843		ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
R844		ERJ3GEYJ390	M.RESISTOR CH 1/16W 39	1	
R845		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R850		VRE0071E822	M.RESISTOR	1	
R851		VRE0071E392	M.RESISTOR	1	
R852		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R853		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R855		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R856		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R861		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R862		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R863		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R864		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R883		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
T801		ETF08L27A	TRANSFORMER	1	
VR801		EVM7JSX30BE2	V.RESISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
VR803		EVM7TSX00BV6	V.RESISTOR	1	
VR804		EVM7BSX30B26	V.RESISTOR	1	
			MISCELLANEOUS		
		VZT0319	CUSHION	1	
	■	VEK7148	MIC UNIT C.B.A.		
C4301-03		ECUX1H102ZFV	C.CAPACITOR CH 50V 1000P	3	
C4304		ECUX1H222KBV	C.CAPACITOR CH 50V 2200P	1	
C4305-07		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	3	
C4308		ECEV05A470	E.CAPACITOR 4V 47U	1	
C4309,10		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	2	
C4311,12		ECUM1H333KBN	C.CAPACITOR CH 50V 0.033U	2	
C4313-16		ECUX1C273KBV	C.CAPACITOR CH 16V 0.27U	4	
C4317,18		ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	2	
C4321,22		ECST1CY105Z	T.CAPACITOR 16V 1U	2	
C4323,24		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C4330		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C4331		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C4332,33		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	
D4301		MA143	DIODE	1	
IC4301		UPC2356GS	IC	1	
J4301		VJJ0319	JACK	1	
P4301		VJP3172B004	CONNECTOR (MALE) 4P	1	
R4301-03		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	3	
R4304		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R4305-08		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	4	
R4309,10		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	2	
R4315,16		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	2	
R4319,20		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	2	
R4321,22		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
R4323,24		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	2	
R4327		ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	
			MISCELLANEOUS		
		VSC3921	MIC SHIELD COVER (A)	1	
		VSC3922	MIC SHIELD COVER (B)	1	
		VMP4341	FRONT FIXING ANGLE	1	
	■	VEP03B15A	VTR MAIN C.B.A.		(RTL)
B4002		VJP2962A008	CONNECTOR (MALE) 8P	1	
B6001		VJP3126B028	CONNECTOR (MALE) 28P	1	
B6004		VJP3358C016	CONNECTOR (MALE) 16P	1	
C3002		ECEV05A470	E.CAPACITOR 4V 47U	1	
C3003,04		ECEV0GA471	E.CAPACITOR 4V 470U	2	
C3005		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	1	
C3006		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C3007		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3008		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C3009		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C3010		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C3011,12		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	2	
C3013		ECEV05A470	E.CAPACITOR 4V 47U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3015		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C3016		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C3017		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C3018		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C3020		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3021		ECUX1H220JCV	C.CAPACITOR CH 50V 22P	1	
C3022		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3029		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3030		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C3031		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C3032		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C3033,34		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C3035		ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3036		ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C3037		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3042		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3045		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C3047		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C3054		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3055		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
C3059		ECUM1H070CCV	C.CAPACITOR CH 50V 7P	1	
C3060		ECEV1EA4R7	E.CAPACITOR 25V 4.7U	1	
C3061		ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C3062		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C3063		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C3065		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3071		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C3072		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3085		ECUX1H100CCV	C.CAPACITOR 50V 10P	1	
C3208		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3209		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C3210		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C3211		ECUX1H180JCV	C.CAPACITOR CH 50V 18P	1	
C3215		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C4001		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C4002		ECST1CY225Z	T.CAPACITOR 16V 2.2U	1	
C4004		ECUX1C123KBV	C.CAPACITOR CH 16V 0.012U	1	
C4005		ECST1AY475Z	T.CAPACITOR 10V 4.7U	1	
C4006		ECST1EY474Z	T.CAPACITOR 25V 0.47U	1	
C4007		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C4008		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C4011		ECUX1H392KBV	C.CAPACITOR CH 50V 3900P	1	
C4012		ECST1CY225Z	T.CAPACITOR 16V 2.2U	1	
C4013,14		ECEV05A470	E.CAPACITOR 4V 47U	2	
C4015		ECUM1C223KBV	C.CAPACITOR CH 16V 0.022U	1	
C4016		ECUX1H682KBV	C.CAPACITOR CH 50V 6800P	1	
C4017		ECUM2A472JCM	C.CAPACITOR 100V 4700P	1	
C4018		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C4020		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C4021		ECEV05A470	E.CAPACITOR 4V 47U	1	
C4022		ECUX1H562KBV	C.CAPACITOR CH 50V 5600P	1	
C4025		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C4501		ECST1CY225Z	T.CAPACITOR 16V 2.2U	1	
C4502,03		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C4504,05		ECUM1C473KBV	C.CAPACITOR CH 16V 0.047U	2	
C4506,07		ECEV0GA330	E.CAPACITOR 4V 33U	2	
C4508,09		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	2	
C4510,11		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C4512,13		ECEV05A470	E.CAPACITOR 4V 47U	2	
C4514-19		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	6	
C4522		ECEV05A470	E.CAPACITOR 4V 47U	1	
C4524,25		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C4526		ECEV0GA101	E.CAPACITOR 4V 100U	1	
C4527		ECUM1C224KBN	C.CAPACITOR CH 16V 0.22U	1	
C4528		ECUX1H271JCV	C.CAPACITOR CH 50V 270P	1	
C4532,33		ECST1CY335Z	T.CAPACITOR 16V 3.3U	2	
C4534		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C4535		ECST1AY475Z	T.CAPACITOR 10V 4.7U	1	
C4539-41		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C4542,43		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C4544		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C4545,46		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	2	
C4548,49		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C4550,51		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	2	
C4552,53		ECEV05A470	E.CAPACITOR 4V 47U	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4555		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5002,03		ECST0JY106Z	T.CAPACITOR 6.3V 10U	2	
C5009		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5010		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5011		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5012		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5013		ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	1	
C5014		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C5015		ECUM1H153KBN	C.CAPACITOR CH 50V 0.015U	1	
C5016		ECUM1H273KBN	C.CAPACITOR CH 50V 0.027U	1	
C5017-29		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	13	
C5030		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C5031		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5032,33		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	2	
C5034		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5036,37		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	2	
C5038,39		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C5040-42		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	3	
C5048		ECUM1C683KBN	C.CAPACITOR 16V 0.68U	1	
C5051		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C5052		ECUX1H121JCV	C.CAPACITOR CH 50V 120P	1	
C5053		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C5054		ECUX1H390JCV	C.CAPACITOR CH 50V 39P	1	
C5055		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C5056		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C5059,60		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	2	
C5063		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C5085		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C5086		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C5100		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C5101		ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C6001-04		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	4	
C6005		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6006,07		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	2	
C6008		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6011		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6012,13		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C6014,15		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C6017		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C6018		ECUX1H270JCV	C.CAPACITOR CH 50V 27P	1	
C6020		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C6022,23		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	2	
C6024,25		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	2	
C6027		ECEV0GA101	E.CAPACITOR 4V 100U	1	
C6029		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6030		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6031		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6033		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6034		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6037		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C6038		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6039		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6040		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6041		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C6042		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6043		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C6044		ECST0JX226Z	T.CAPACITOR 6.3V 22U	1	
C6201		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6203		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C6204,05		ECUM1C105KBM	C.CAPACITOR CH 16V 1U	2	
C6206		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6207		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C6208		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C6209		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6210		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C6211		ECUX1H223ZFV	C.CAPACITOR CH 50V 0.022U	1	
C6213		ECEV05A470	E.CAPACITOR 4V 47U	1	
C6214		ECUX1H561JCV	C.CAPACITOR CH 50V 560P	1	
C6221		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C6230		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C6231		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8002		ECUX1H050CCV	C.CAPACITOR CH 50V 5P	1	
C8003		ECUX1H100CCV	C.CAPACITOR 50V 10P	1	
C8006		ECUX1H221JCV	C.CAPACITOR CH 50V 220P	1	
C8012		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C8015		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8019		ECUX1H560JCV	C.CAPACITOR CH 50V 56P	1	
C8022		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C8023		ECUX1H820JCV	C.CAPACITOR CH 50V 82P	1	
C8024		ECUX1H330JCV	C.CAPACITOR CH 50V 33P	1	
C8030		ECEV05A470	E.CAPACITOR 4V 47U	1	
C8032		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C8033		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C8034-39		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	6	
C8041,42		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C8048		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C8049		ECEV1VA4R7	E.CAPACITOR CH 35V 4.7U	1	
C8050		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8051		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8052		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8053,54		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C8062		ECUX1H151JCV	C.CAPACITOR CH 50V 150P	1	
C8063		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C8064		ECEV05A470	E.CAPACITOR 4V 47U	1	
C8066		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C8067		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C8077		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8078		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C8079-81		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C8082		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C8083		ECUX1H223ZFV	C.CAPACITOR CH 50V 0.022U	1	
C8084-90		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	7	
C8091		ECEV05A470	E.CAPACITOR 4V 47U	1	
C8092		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8093,94		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	2	
C8095		ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C8096		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C8097		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C8098,99		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C8100,01		ECEV1HA2R2	E.CAPACITOR 50V 2.2U	2	
C8102		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8103		ECUX1H120JCV	C.CAPACITOR CH 50V 12P	1	
C8105		ECUX1H680JCV	C.CAPACITOR CH 50V 68P	1	
D3001		RB501HTT11	DIODE	1	
D3003		MA110	DIODE	1	
D4501		MA133	DIODE	1	
D4502,03		MA728	DIODE	2	
D5001-03		MA132WA	DIODE	3	
D6008		MA110	DIODE	1	
D6010		MA728	DIODE	1	
D6011		MA132WK	DIODE	1	
D6012		MA132WA	DIODE	1	
D6013		MA132A	DIODE	1	
D6014		BR1102W	DIODE	1	
D6015		MA728	DIODE	1	
D6016		MA133	DIODE	1	
D6017		MA141WK	DIODE	1	
D6018		MA133	DIODE	1	
D6020		MA132WA	DIODE	1	
D6100		MA133	DIODE	1	
D6201		MA110	DIODE	1	
D8001		MA110	DIODE	1	
FL3001		VLF1094	FILTER	1	
FL8001		VLF0973	FILTER	1	
FP3003		VJS3452C026	CONNECTOR (FEMALE) 26P	1	
FP4001		VJS2960A009	CONNECTOR (FEMALE) 9P	1	
FP5001		VJS2959B023	CONNECTOR (FEMALE) 23P	1	
FP6001		VJS2959B016	CONNECTOR (FEMALE) 16P	1	
FP6002		VJS2959B006	CONNECTOR (FEMALE) 6P	1	
FP6005		VJS3320D022	CONNECTOR (FEMALE) 22P	1	
FP6006		VJS3452C012	CONNECTOR (FEMALE) 12P	1	
FP6007		VJS3452C020	CONNECTOR (FEMALE) 20P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC3001		VEFH25D	IC	1	
IC3002		TC7W04F	IC	1	
IC3003		AN3298NSB	IC	1	
IC4501		JCY0040	IC	1	
IC5001		AN3352FHP	IC	1	
IC6001		MN6755324M2N	IC	1	
IC6002		S3500B3	IC	1	
IC6003		HJ6462	IC	1	
IC6004		UPD4066BG	IC	1	
IC6005		BA6289F	IC	1	
IC6006		TA75W393FU	IC	1	
IC6007		XC62CP3802PR	IC	1	
IC6008		PST9133NR	IC	1	
IC8001		AN2467NFHP	IC	1	
IC8002		LC89970MDTER	IC	1	
L3001,02		VLQ0319K101	COIL 100UH	2	
L3003		VLQ0163J560	COIL 56UH	1	
L3004		VLQ0319F150	COIL 15UH	1	
L3005		VLQ0163J121	COIL 120UH	1	
L3006		VLQ0163J3R9	COIL 3.9UH	1	
L3010		VLQ0163J470	COIL 47UH	1	
L3011		VLQ0163J150	COIL 15UH	1	
L3012		VLQ0163J100	COIL 10UH	1	
L3015		VLQ0163J470	COIL 47UH	1	
L3017		VLQ0163J680	COIL 68UH	1	
L3018,19		VLQ0319F150	COIL 15UH	2	
L3021		VLQ0163J330	COIL 33UH	1	
L3030		VLQ0163J330	COIL 33UH	1	
L4001		VLQ0319K470	COIL 47UH	1	
L4002		VLQ0423J153	COIL 15MH	1	
L4003		VLQ0319K101	COIL 100UH	1	
L4501		VLQ0319K330	COIL 39UH	1	
L5001-03		VLQ0319F150	COIL 15UH	3	
L5004		VLQ0319K101	COIL 100UH	1	
L5005		VLQ0401K120	COIL 12UH	1	
L5007		VLQ0319K101	COIL 100UH	1	
L5008		VLQ0319F150	COIL 15UH	1	
L5010		VLQ0319F150	COIL 15UH	1	
L6001		VLQ0163J330	COIL 33UH	1	
L6002		VLQ0319K101	COIL 100UH	1	
L6003		VLP0140	COIL	1	
L8001		VLQ0163J270	COIL 27UH	1	
L8002		VLQ0163J100	COIL 10UH	1	
L8003		VLQ0163J470	COIL 47UH	1	
L8004		VLQ0163J100	COIL 10UH	1	
L8006		VLQ0163J330	COIL 33UH	1	
L8007		VLQ0319F150	COIL 15UH	1	
L8012		VLQ0319K560	COIL	1	
L8014		VLQ0163K101	COIL 100UH	1	
L8015		VLQ0319F150	COIL 15UH	1	
L8018		VLQ0163J470	COIL 47UH	1	
P3003		VJP3172B005	CONNECTOR (MALE) 5P	1	
P4003		VJP3172B004	CONNECTOR (MALE) 4P	1	
P6003		VJP3125D002	CONNECTOR (MALE) 2P	1	
Q3001		2SB970X	TRANSISTOR	1	
Q3003		2SC4627	TRANSISTOR	1	
Q3004		2SD2216	TRANSISTOR	1	
Q3006		2SD2216	TRANSISTOR	1	
Q3008-10		2SC4627	TRANSISTOR	3	
Q3012		2SD2216	TRANSISTOR	1	
Q3014		2SB1462	TRANSISTOR	1	
Q3021		2SB1462	TRANSISTOR	1	
Q3022		2SC4627	TRANSISTOR	1	
Q3023,24		2SB1462	TRANSISTOR	2	
Q3204		2SD2216	TRANSISTOR	1	
Q4001		2SD2216	TRANSISTOR	1	
Q4002		2SD602-R	TRANSISTOR	1	
Q4003		2SD2216	TRANSISTOR	1	
Q4004		XN4501	TRANSISTOR-RESISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q4005		2SB1219	TRANSISTOR	1	
Q4007		2SB1462	TRANSISTOR	1	
Q4501,02		2SD1979	TRANSISTOR	2	
Q4503,04		2SD2216	TRANSISTOR	2	
Q4510,11		2SD2216	TRANSISTOR	2	
Q4512,13		2SB1462	TRANSISTOR	2	
Q4515,16		XP4601	TRANSISTOR-RESISTOR	2	
Q5001,02		XN4506	TRANSISTOR-TRANSISTOR	2	
Q5004,05		2SA812	TRANSISTOR	2	
Q5006,07		XN1501	TRANSISTOR-TRANSISTOR	2	
Q6002		2SD2216	TRANSISTOR	1	
Q6004		2SD2216	TRANSISTOR	1	
Q6005		XN4501	TRANSISTOR-RESISTOR	1	
Q6008		2SB1462	TRANSISTOR	1	
Q6009		2SD2216	TRANSISTOR	1	
Q6010		2SB798	TRANSISTOR	1	
Q6011		XN1501	TRANSISTOR-TRANSISTOR	1	
Q6201		2SB1462	TRANSISTOR	1	
Q8001		2SB1462	TRANSISTOR	1	
Q8002		2SC3938	TRANSISTOR	1	
Q8003		2SB1462	TRANSISTOR	1	
Q8004,05		2SD2216	TRANSISTOR	2	
Q8006		2SC4627	TRANSISTOR	1	
Q8007		2SB1462	TRANSISTOR	1	
Q8009		2SD2216	TRANSISTOR	1	
QR3001		UN9212	TRANSISTOR-RESISTOR	1	
QR3002		UN9213	TRANSISTOR-RESISTOR	1	
QR3004		UN9211	TRANSISTOR-RESISTOR	1	
QR3009,10		UN9213	TRANSISTOR-RESISTOR	2	
QR3013		UN9212	TRANSISTOR-RESISTOR	1	
QR3014		XN1212	TRANSISTOR-RESISTOR	1	
QR4003		UN9112	TRANSISTOR-RESISTOR	1	
QR4004		UN9210	TRANSISTOR-RESISTOR	1	
QR4501		UN9113	TRANSISTOR-RESISTOR	1	
QR4502		UN9212	TRANSISTOR-RESISTOR	1	
QR4503,04		UN9213	TRANSISTOR-RESISTOR	2	
QR5001,02		XP1213	TRANSISTOR-RESISTOR	2	
QR5003		UN2130X	TRANSISTOR-RESISTOR	1	
QR5005		UN9213	TRANSISTOR-RESISTOR	1	
QR5010		UN2130X	TRANSISTOR-RESISTOR	1	
QR5011		UN9213	TRANSISTOR-RESISTOR	1	
QR6001		UN2130X	TRANSISTOR-RESISTOR	1	
QR6003		UN9112	TRANSISTOR-RESISTOR	1	
QR6004		XN4115	TRANSISTOR-RESISTOR	1	
QR6007		UN9211	TRANSISTOR-RESISTOR	1	
QR6008		UN9210	TRANSISTOR-RESISTOR	1	
QR6010		XN1213	TRANSISTOR-TRANSISTOR	1	
QR6012		XN1213	TRANSISTOR-TRANSISTOR	1	
QR6014		UN9213	TRANSISTOR-RESISTOR	1	
QR6015		UN9215	TRANSISTOR-RESISTOR	1	
QR6016		XN1213	TRANSISTOR-TRANSISTOR	1	
QR6018		UN921E	TRANSISTOR-RESISTOR	1	
QR6020		XN1213	TRANSISTOR-TRANSISTOR	1	
QR6022		XN4212	TRANSISTOR-TRANSISTOR	1	
QR6023		UN2130X	TRANSISTOR-RESISTOR	1	
QR6024		UN9212	TRANSISTOR-RESISTOR	1	
QR8101		UN9213	TRANSISTOR-RESISTOR	1	
R3001		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3002		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3003		ERJ3GEYG102	M.RESISTOR CH 1/16W 1K	1	
R3004		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3005		ERJ3GEYG471	M.RESISTOR CH 1/16W 470	1	
R3006		ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R3007		ERJ3GEYG152	M.RESISTOR CH 1/16W 1.5K	1	
R3008		ERJ3GEYG332	M.RESISTOR CH 1/16W 3.3K	1	
R3010		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3011		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3012		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3013		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R3014,15		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R3016		ERJ3GEYJ564	M.RESISTOR CH 1/16W 560K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3017		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R3021		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3022		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R3023		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R3027		VRE0082A271	M.RESISTOR	1	
R3029		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R3030		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R3031		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R3032		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3033		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3036		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3037		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R3038		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3040		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R3042		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3043		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3044		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R3045		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3046		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3048		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3049		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3050		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3055		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3058		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3059		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R3060,61		VRE0082A620	M.RESISTOR	2	
R3062		ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	1	
R3064		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3070		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3071		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3072		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3073		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R3074		VRE0082A102	M.RESISTOR	1	
R3075		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3076		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R3077		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R3080		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3081		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3082		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R3084		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R3086		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	1	
R3089		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R3090		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3091		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R3092		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R3095		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R3098		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R3107		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R3113		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R3131		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3213		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R3225		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R3238		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R3240		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3242		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R3244		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R3245		ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R4001		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R4002		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4003		VRE0082A271	M.RESISTOR	1	
R4004		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R4005		VRE0082A682	M.RESISTOR	1	
R4006		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R4007		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R4009		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R4010		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R4014		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R4015-17		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	3	
R4018		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R4019,20		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	2	
R4021		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R4022		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R4023		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R4024		ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	1	
R4025		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4026		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R4027		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R4028		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R4501		ERJ3GEYJ684	M.RESISTOR CH 1/16W 680K	1	
R4502,03		ERJ3GEYJ511	M.RESISTOR CH 1/16W 510	2	
R4504,05		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R4510,11		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	2	
R4512,13		ERJ3GEYJ562	M.RESISTOR CH 1/16W 5.6K	2	
R4516		VRE0082A153	M.RESISTOR	1	
R4517		VRE0082A123	M.RESISTOR	1	
R4518		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R4519		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R4520		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R4521		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R4524		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R4525		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R4526,27		ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	2	
R4528,29		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	2	
R4530,31		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	2	
R4533		VRE0034E133	M.RESISTOR CH 1/10W 13K	1	
R4535		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R4536		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R4537		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4538		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R4539,40		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	2	
R4541		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R4542		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R4543,44		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	2	
R4545		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R4546		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R4555,56		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	2	
R4557,58		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R4559,60		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	2	
R4561,62		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	2	
R4563,64		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	2	
R4565,66		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
R4567,68		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	2	
R4575,76		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	2	
R4577,78		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	2	
R4579,80		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R5001		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R5002		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R5003		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R5005		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R5006-08		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	3	
R5009		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R5011		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R5013		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R5014		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R5015,16		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	2	
R5024		ERJ3GEYJ4R7	M.RESISTOR CH 1/16W 4.7	1	
R5025		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R5026		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R5027		ERJ3GEYJ822	M.RESISTOR CH 1/16W 8.2K	1	
R5028		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R5029,30		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	2	
R5033		ERJ3GEYJ155	M.RESISTOR CH 1/16W 1.5M	1	
R5055,56		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R5070		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R5071		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R5100		ERJ3GEYJ274	M.RESISTOR CH 1/16W 270K	1	
R6001		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6003		ERJ3GEYJ274	M.RESISTOR CH 1/16W 270K	1	
R6004		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R6005		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6006		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R6007,08		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R6009		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6011		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6012		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6013		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6014		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R6015		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6016		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6017		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6018		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R6019		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R6020		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R6021		ERJ8GEYJ120	M.RESISTOR CH 1/8W 12	1	
R6022		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R6024		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6025		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6026		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6027,28		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	2	
R6029		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R6030		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6031		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6032,33		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R6034		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R6035		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6038		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6039		ERJ8GEYJ2R2	M.RESISTOR CH 1/8W 2.2	1	
R6040		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R6041		ERJ3GEYJ684	M.RESISTOR CH 1/16W 680K	1	
R6042		ERJ3GEYJ123	M.RESISTOR CH 1/16W 12K	1	
R6043		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R6044		VRE0082A223	M.RESISTOR	1	
R6045		VRE0082A333	M.RESISTOR	1	
R6048,49		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
R6050		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6051		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R6052,53		ERJ3GEYJ184	M.RESISTOR CH 1/16W 180K	2	
R6054		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6055,56		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R6058		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6060		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R6061		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R6062,63		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R6066		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6070		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R6071		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6072		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R6073		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6074		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6075		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R6076		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6077		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R6080		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R6081		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R6082		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	
R6083		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	1	
R6084		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6085		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R6090-08		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	19	
R6111		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R6112		ERJ3GEYJ333	M.RESISTOR CH 1/16W 33K	1	
R6113		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6120		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6121		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R6130		ERJ3GEYJ821	M.RESISTOR CH 1/16W 820	1	
R6131		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6132		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6134		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6135		ERJ3GEYJ121	M.RESISTOR CH 1/16W 120	1	
R6138		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6139		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6140,41		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	2	
R6144		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6145		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R6150		ERJ3GEYJ272	M.RESISTOR CH 1/16W 2.7K	1	
R6151		ERJ3GEYJ334	M.RESISTOR CH 1/16W 330K	1	
R6152		ERJ3GEYJ124	M.RESISTOR CH 1/16W 120K	1	
R6153		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R6154		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6155		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6168		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6170		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R6173,74		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	2	
R6175		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R6176		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6177		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R6180,81		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	2	
R6182,83		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	2	
R6184		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6186		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
R6187		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6191		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R6192		VRE0071E272	M.RESISTOR	1	
R6193		VRE0071E221	M.RESISTOR	1	
R6194		VRE0067G562	M.RESISTOR	1	
R6195		VRE0067G561	M.RESISTOR CH 1/10W	1	
R6196		VRE0067G562	M.RESISTOR	1	
R6197		ERJ3GEYJ152	M.RESISTOR CH 1/16W 1.5K	1	
R6198		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6199		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R6203		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6205		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R6206,07		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R6208		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6209		ERJ3GEYJ181	M.RESISTOR CH 1/16W 180	1	
R6210,11		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	2	
R6212		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R6213		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R6214		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R6215		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R6216		ERJ8GEYJ2R2	M.RESISTOR CH 1/8W 2.2	1	
R6220		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R6231		ERJ8GEYJ2R2	M.RESISTOR CH 1/8W 2.2	1	
R6232		ERJ3GEYJ394	M.RESISTOR CH 1/16W 390K	1	
R6233-35		ERJ3GEYJ393	M.RESISTOR CH 1/16W 39K	3	
R6303,04		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	2	
R8003		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R8004		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R8005		ERJ3GEYJ183	M.RESISTOR CH 1/16W 18K	1	
R8006,07		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	2	
R8008		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R8016		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R8017		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	1	
R8018		ERJ3GEYJ155	M.RESISTOR CH 1/16W 1.5M	1	
R8019		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R8030,31		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R8032		VRE0082A512	M.RESISTOR	1	
R8033		VRE0082A222	M.RESISTOR	1	
R8034		ERJ3GEYJ332	M.RESISTOR CH 1/16W 3.3K	1	
R8035		ERJ3GEYJ223	M.RESISTOR CH 1/16W 22K	1	
R8036		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R8040		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R8041		ERJ3GEYJ823	M.RESISTOR CH 1/16W 82K	1	
R8046,47		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R8048		VRE0082A153	M.RESISTOR	1	
R8049,50		VRE0082A271	M.RESISTOR	2	
R8051		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	1	
R8052		ERJ3GEYJ563	M.RESISTOR CH 1/16W 56K	1	
R8053		ERJ3GEYJ682	M.RESISTOR CH 1/16W 6.8K	1	
R8054		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R8055		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R8056		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R8057,58		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	2	
R8062		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R8063		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	1	
R8067		VRE0082A202	M.RESISTOR	1	
R8068		VRE0082A132	M.RESISTOR	1	
R8069,70		ERJ3GEYJ681	M.RESISTOR CH 1/16W 680	2	
R8071,72		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	2	
R8073		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R8076		ERJ3GEYJ273	M.RESISTOR CH 1/16W 27K	1	
R8077		ERJ3GEYJ153	M.RESISTOR CH 1/16W 15K	1	
R8078		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R8079		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R8080		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R8081		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R8111		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R8116		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
RA6001		EXBV8V102J	RESISTOR-RESISTOR	1	
RA6004		EXBV8V102J	RESISTOR-RESISTOR	1	
RA6006		EXBV8V104J	RESISTOR-RESISTOR	1	
RA6008		EXBV4V104J	RESISTOR-RESISTOR	1	
RA6010		EXBV8V102J	RESISTOR-RESISTOR	1	
RA6012		EXBV4V104J	RESISTOR-RESISTOR	1	
RA6013,14		EXBV8V102J	RESISTOR-RESISTOR	2	
RA6016,17		EXBV4V104J	RESISTOR-RESISTOR	2	
T4001		EIQ6QB008T	TRANSFORMER	1	
VR3004		EVM7JSX10B53	V.RESISTOR	1	
VR3005		EVM7JSX10B23	V.RESISTOR	1	
VR3006		EVM7JSX10B14	V.RESISTOR	1	
VR3007		EVM7JSX10B54	V.RESISTOR	1	
VR8002		EVM7JSX10B23	V.RESISTOR	1	
X6001		VSX0461	CRYSTAL OSCILLATOR	1	
X6002		VSX0601	CRYSTAL OSCILLATOR	1	
X8001		VSX0419	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VSC3927	H.A SHIELD COVER (A)	1	
		VSC3928	H.A SHIELD COVER (B)	1	
		VMZ2216	H.A SHILED BARRIER	1	
	■	VEP01594A	POWER C.B.A.		(RTL)
B1001		VJS2961A028	CONNECTOR (FEMALE) 28P	1	
C1001		ECUM1C335ZFM	C.CAPACITOR CH 16V 3.3U	1	
C1002		ECGC1BA4R7	CAPACITOR	1	
C1003		ECGC0KB8R2	C.CAPACITOR 8V 8.2U	1	
C1004		ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C1005		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C1006		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C1008		ECGC0KB8R2	C.CAPACITOR 8V 8.2U	1	
C1009		ECUX1H331JCV	C.CAPACITOR CH 50V 330P	1	
C1010		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C1011		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C1012		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	1	
C1013		ECGC1BA4R7	CAPACITOR	1	
C1014		ECUX1H561JCV	C.CAPACITOR CH 50V 560P	1	
C1015		ECEV1CA470P	E.CAPACITOR 16V 47U	1	
C1017		ECUM1E105ZFM	C.CAPACITOR CH 25V 1U	1	
C1019		ECUM1E474ZFM	C.CAPACITOR CH 25V 0.47U	1	
C1020		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C1022		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C1024		ECUM1C474ZFN	C.CAPACITOR 16V 0.47U	1	
C1025		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C1026		ECEV1HA010	E.CAPACITOR 50V 1U	1	
C1027		ECUX1H101JCV	C.CAPACITOR CH 50V 100P	1	
C1028		ECEV1HAR47	E.CAPACITOR 50V 0.47U	1	
C1029		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1030		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1031		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1032		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1033-35		ECUX1H102KBV	C.CAPACITOR CH 50V 1000P	3	
C1036		ECUX1H471JCV	C.CAPACITOR CH 50V 470P	1	
C1037		ECUX1H822KBV	C.CAPACITOR CH 50V 8200P	1	
C1042		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C1043		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C1051		ECUM1C474ZFN	C.CAPACITOR 16V 0.47U	1	
C1057		ECUM1C105MBM	C.CAPACITOR CH 16V 1U	1	
C1058		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C1063		ECUX1H472KBV	C.CAPACITOR CH 50V 4700P	1	
C1064		ECEV1CG470	.CAPACITOR V	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C1066		ECUM1C105ZFN	C.CAPACITOR CH 16V 1U	1	
C1071		ECUM1C335ZFM	C.CAPACITOR CH 16V 3.3U	1	
C1072		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C1103		ECEV1CA220	E.CAPACITOR CH 10V 22U	1	
D1002		SFPB-76	DIODE	1	
D1004		EC10QS04	DIODE	1	
D1005		SB05-05CP	DIODE	1	
D1006,07		MA142K	DIODE	2	
D1008		MA728	DIODE	1	
D1015		MA738	DIODE	1	
D1062		SB05-05CP	DIODE	1	
D1064		MA728	DIODE	1	
D1101-03		MA8130M	DIODE	3	
D1501		MA738	DIODE	1	
FP1001		VJS3320D016	CONNECTOR (FEMALE) 16P	1	
IC1001		BA9706K	IC	1	
J1001		VEK6535	JACK	1	
J1501		VJJ0368	JACK	1	
L1001		ELL04T509R	COIL H	1	
L1002		ELL04T016R	COIL H	1	
L1003		ELC6UB4R7M	COIL	1	
L1004		VLQ0319K100	COIL 10UH	1	
L1006		VLQ0319K470	COIL 47UH	1	
L1007		ELL04T027R	COIL	1	
L1008		ELC6UB4R7M	COIL	1	
L1009		VLQ0319K100	COIL 10UH	1	
L1010,11		VLQ0319K101	COIL 100UH	2	
L1012		VLQ0319K100	COIL 10UH	1	
L1014		VLQ0319K100	COIL 10UH	1	
L1015		VLQ0319F150	COIL 15UH	1	
L1016		VLQ0319K470	COIL 47UH	1	
L1062		ELL04T035R	COIL	1	
L1102,03		VLP0134	COIL	2	
Q1001		2SA1731	TRANSISTOR	1	
Q1002,03		2SB798	TRANSISTOR	2	
Q1004		2SD2210	TRANSISTOR	1	
Q1005		2SB1073	TRANSISTOR	1	
Q1062		2SB798	TRANSISTOR	1	
QR1002		UN5214	TRANSISTOR-RESISTOR	1	
QR1006		UN2130X	TRANSISTOR-RESISTOR	1	
QR1061		UN5115	TRANSISTOR-RESISTOR	1	
R1001		VRE0067G822	M.RESISTOR	1	
R1002		VRE0067G272	M.RESISTOR	1	
R1003		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1004		ERJ3GEYJ391	M.RESISTOR CH 1/16W 390	1	
R1005		VRE0067G562	M.RESISTOR	1	
R1006		VRE0067G272	M.RESISTOR	1	
R1007		ERJ8GEYJ330	M.RESISTOR CH 1/8W 33	1	
R1008		VRE0067G103	M.RESISTOR	1	
R1009		VRE0067G152	M.RESISTOR	1	
R1012		VRE0067G20C	M.RESISTOR CH 1/10W	1	
R1013		VRE0067G393	M.RESISTOR	1	
R1014,15		VRE0067G182	M.RESISTOR	2	
R1016		VRE0034E153	M.RESISTOR CH 1/10W 15K	1	
R1017		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R1018		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1019		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R1020		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1021		ERJ3GEYJ330	M.RESISTOR CH 1/16W 33	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R1022		ERJ3GEYJ150	M.RESISTOR CH 1/16W 15	1	
R1023		ERJ3GEYJ182	M.RESISTOR CH 1/16W 1.8K	1	
R1024		ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1025		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R1026		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1027		ERJ3GEYJ151	M.RESISTOR CH 1/16W 150	1	
R1033		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1035		ERJ3GEYJ470	M.RESISTOR CH 1/16W 47	1	
R1038		VRE0071E620	M.RESISTOR	1	
R1039		VRE0071E221	M.RESISTOR	1	
R1040		VRE0071E151	M.RESISTOR	1	
R1051		VRE0034E243	M.RESISTOR CH 1/10W 2.4K	1	
R1052		VRE0034E393	M.RESISTOR CH 1/10W 39K	1	
R1062		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R1063		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R1065		ERJ3GEYJ122	M.RESISTOR CH 1/16W 1.2K	1	
R1071		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1072		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R1073		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R1077		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R1115		VSF0092	M.RESISTOR	1	
R1207		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R1208		ERJ3GEY0R00	M.RESISTOR CH 1/16W 0	1	
R1301		ERJ3GEYJ683	M.RESISTOR CH 1/16W 68K	1	
SW1301		ESE122	SWITCH	1	
T1001		ELL04T051R	TRANSFORMER	1	
T1002		VTP0365	TRANSFORMER	1	
Z1001		VL2020/1HF	BATTERY	1	
			MISCELLANEOUS		
		VSC3659	POWER SHIELD COVER (TOP)	1	
		VSC3953	POWER SHIELD COVER (BOTT.)	1	
	■	VEP02418A	DRIVE C.B.A.		(RTL)
C2001		ECUM1C564KXM	C.CAPACITOR 16V 0.56U	1	
C2002		ECUM1C105KBM	C.CAPACITOR CH 16V 1U	1	
C2003		ECUX1H332KBV	C.CAPACITOR CH 50V 3300P	1	
C2004		ECUX1H470JCV	C.CAPACITOR CH 50V 47P	1	
C2005		ECUX1H152KBV	C.CAPACITOR CH 50V 1500P	1	
C2007		ECUM1C105KBM	C.CAPACITOR CH 16V 1U	1	
C2009		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	1	
C2011		ECUX1E223KBV	C.CAPACITOR CH 25V 0.022U	1	
C2012		ECUM1C473KXV	C.CAPACITOR CH 16V 0.047U	1	
C2014		ECST1AY475Z	T.CAPACITOR 10V 4.7U	1	
C2015-17		ECUM1C104KBN	C.CAPACITOR CH 16V 0.1U	3	
C2018		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C2020-22		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	3	
C2023		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C2024		ECUX1H103KBV	C.CAPACITOR CH 50V 0.01U	1	
C2025-27		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	3	
C2028		ECST0JY106Z	T.CAPACITOR 6.3V 10U	1	
C2029-32		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	4	
C2033		ECUM1C185ZFN	C.CAPACITOR CH 16V 1.8U	1	
C2036		ECUX1C104ZFV	C.CAPACITOR CH 16V 0.1U	1	
C2040-42		ECUM1C473KXV	C.CAPACITOR CH 16V 0.047U	3	
FP2001		VJS2848D007	CONNECTOR (FEMALE) 7P	1	
FP2002		VJS2958B018	CONNECTOR (FEMALE) 18P	1	
FP2003		VJS3442D023	CONNECTOR (FEMALE) 23P	1	
IC2001		TB6513AF	IC	1	
IC2002,03		UN224	IC	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR2001		ON2170	TRANSISTOR-RESISTOR	1	
QR2002		UN5215	TRANSISTOR-RESISTOR	1	
R2001		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R2002		ERJ3GEYJ224	M.RESISTOR CH 1/16W 220K	1	
R2003		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2004		ERJ3GEYJ154	M.RESISTOR CH 1/16W 150K	1	
R2005		ERJ3GEYJ392	M.RESISTOR CH 1/16W 3.9K	1	
R2006		ERJ3GEYJ474	M.RESISTOR CH 1/16W 470K	1	
R2007		ERJ8GEYJR47	M.RESISTOR CH 1/8W 0.47U	1	
R2008		ERJ8GEYJR33	M.RESISTOR CH 1/8W 0.33	1	
R2009		ERJ3GEYJ561	M.RESISTOR CH 1/16W 560	1	
R2010		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	1	
R2011		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R2012		ERJ3GEYJ684	M.RESISTOR CH 1/16W 680K	1	
R2014		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R2015		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	1	
R2016		ERJ3GEYJ222	M.RESISTOR CH 1/16W 2.2K	1	
R2017		ERJ3GEYJ102	M.RESISTOR CH 1/16W 1K	1	
R2018		ERJ3GEYJ472	M.RESISTOR CH 1/16W 4.7K	1	
R2019,20		ERJ3GEYJ471	M.RESISTOR CH 1/16W 470	2	
R2021		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R2022		ERJ8GEYJR33	M.RESISTOR CH 1/8W 0.33	1	
R2040-42		ERJ3GEYJ331	M.RESISTOR CH 1/16W 330	3	
R2045,46		ERJ3GEYJ473	M.RESISTOR CH 1/16W 47K	2	
			MISCELLANEOUS		
		VMD1842	REEL SENSOR STATOR	1	
	■	VEK7103	AV JACK C.B.A.		(RTL)
B1501		VJS2961C008	CONNECTOR (FEMALE) 8P	1	
B3501		VJS2961C008	CONNECTOR (FEMALE) 8P	1	
D3502		MA153	DIODE	1	
J1502		VEJ1308	AV JACK TERMINAL	1	
L3501-03		VLQ0584	COIL	3	
L3504		VLP0171	COIL H	1	
L3508		VLQ0584	COIL	1	
			MISCELLANEOUS		
		VSC3689	EARTH PLATE	1	
		VJB00U55A	FLEX CARD	1	
	■	VEP00U80A	EJECT C.B.A.		(RTL)
S6703		VSP0584	SWITCH	1	
	■	VEP00T11D	S/S C.B.A.		(RTL)
S6702		ESE105MH7	SWITCH	1	
	■	VEK7104	S-JACK UNIT		(RTL)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
J1501		VEJ1188	S JACK TERMINAL	1	
			MISCELLANEOUS		
		VJB03B16	FLEX CARD	1	

INTERNAL REFERENCE CODES

NOTE: This chart is only for internal reference.
Do not order any parts according to these codes.

P.C.B.	FILM CODE
AV JACK	HOKU00-00U55
CAMERA MAIN	HOKU00-23204
MIC	HOKU00-04472
DRIVE	HOKU00-02418
EVF	HOKU00-28086
CCD FLEXIBLE CARD	HOKU00-22133
S/S	HOKU00-00T11
IR SENSOR	HOKU00-23209
VTR MAIN	HOKU00-03B15
POWER	HOKU00-01594
EJECT	HOKU00-00U80
S-JACK	HOKU00-03B16